

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name: Newark Liberty International Airport Block: 5094 Lot(s): 01
 Facility Street Address: Hangar 14
 Municipality: City of Newark County: Essex Telephone #: 973-961-6220

B. Owner (RP)'s Name/ Organization: Port Authority of New York and New Jersey
 Street Address: Building 80, Brewster Road City: Newark
 State: NJ Zip: 07728 Telephone #: 973-961-6220

C. (Check as appropriate)

- ☐ Site Investigation Report (SIR) \$500 Fee
- ☐ Remedial Investigation Report (RIR) \$1000 Fee

D. (Complete all that apply)

- Assigned Case Manager: Gary Greulich
- UST Facility ID Number: 007693
- Closure Activity Number: _____ (i.e. UCL010001)
- Tank Closure Number: _____ ; _____ (i.e. N01-0000)
- Comm. Center Number(s): _____ (i.e. 00-00-00-0000-00)
- Case #: _____ (i.e. 000001USR010001)

E. Certification by the Subsurface Evaluator:

Name: Jennifer Nulty Kohl Saat Signature: Jennifer N. Kohl Saat UST Cert. No.: 0011809

Firm: Hatch Mott MacDonald Firm's UST Cert. Number: US00089

Firm Address: 27 Bleeker Street

City: Millburn State: NJ Zip: 07041

Telephone Number: 973-379-3400 E-mail Address: jennifer.kohl Saat@hatchmott.com

Yes - No The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E.
 (NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

F. Certification by the Responsible Party(ies) of the Facility:

The following certification shall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)] as follows:

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official.

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate, or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Name (Print or Type): _____ Title: _____

Signature: _____ Telephone #: _____

Company Name: _____ Date: _____



Hatch Mott
MacDonald

**The Port Authority of New York and New Jersey
Hangar 14 – Newark International Airport
UST Closure Work Plan and Site Investigation Report**

November 2006

Newark International Airport
City of Newark, Essex County, New Jersey
223460AA01



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Attachment: EDD



EXECUTIVE SUMMARY

Hangar 14 - Newark-Liberty International Airport

Hangar 14 is located at the Newark Liberty International Airport (Airport) in the City of Newark, Essex County, New Jersey. Hangar 14 is owned by the Port Authority of New York and New Jersey (Port Authority) and was formerly operated by United Airlines; United Airlines utilized Hangar 14 to maintain aircrafts and ground service equipment. On April 29 and 30, 2004, the original Oil Water Separator System (OWSS) utilized by Hangar 14 was decommissioned. The OWSS structure was constructed of concrete and included one 550-gallon underground storage tank (UST). The Port Authority was unaware of the UST at the time of the OWSS decommissioning. As such, the Port Authority has subsequently implemented tasks to properly close the UST associated with the OWSS.

The tasks performed as part of the UST closure included both soil and ground water sampling. Specifically, five post excavation soil samples were collected on April 26, 27, and 28, 2006 from the location of the former UST. The soil samples were submitted for laboratory analysis for priority pollutant plus the first 40 non-targeted peaks (PP+40) and total petroleum hydrocarbons (TPHC). Analytical results revealed concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, above New Jersey's Residential Direct Contact Soil Cleanup Criteria (RDCSCC) standards. Aroclor-1242 and Aroclor-1254 were detected above New Jersey's RDCSCC and Non Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) standards. As ground water was encountered during the April 2006 sampling, the Port Authority implemented a ground water investigation. One ground water monitoring well was installed at the former UST location on April 28, 2006 and sampled on May 16, 2006. Laboratory analysis of ground water samples identified levels of mercury, arsenic, cadmium, chromium, lead, and Aroclor-1242 above New Jersey's Ground Water Quality Criteria (GWQC) standards.

CONCLUSION AND RECOMMENDATIONS

No compounds were detected in the soil above the NRDCSCC other than Aroclor-1242 and Aroclor-1254. No compounds were detected in the ground water above the GWQC other than Aroclor-1242 and metals associated with background conditions. Given the analytical results from the 2006 site investigation, no further investigation is warranted or proposed for the UST. The PCB contamination is being addressed by the Port Authority and United Airlines as a separate issue.

1.0 INTRODUCTION

Hangar 14 is located at the Newark Liberty International Airport (Airport) in the City of Newark, Essex County, New Jersey. Hangar 14 is owned by the Port Authority of New York and New Jersey (Port Authority) and was formerly operated by United Airlines; United Airlines utilized Hangar 14 to maintain aircrafts and ground service equipment. The location of Hangar 14 is depicted on Figure 1, Site Location Map.

Hangar 14 is a 45,000 square foot rectangular structure constructed in 1958 during the original Airport construction. On April 29 and 30, 2004, the original Oil Water Separator System (OWSS), utilized by Hangar 14, was decommissioned by the Port Authority. The OWSS structure was constructed of concrete and included one 550-gallon underground storage tank (UST). The UST was located adjacent to the west of the OWSS. Based on the use of the UST in connection to the OWSS, this 550-gallon UST was required to be registered with the New Jersey Department of Environmental Protection (NJDEP). At the time of the OWSS decommissioning and removal, the Port Authority was unaware of the UST associated with the OWSS. Limited documentation is available with regard to the specifics of the removal of the UST, as the focus of the April 2004 removal effort was the removal and decommissioning of the OWSS.

Given the above, the Port Authority has performed the tasks necessary to close the UST associated with the OWSS. As part of the closure, the Port Authority has investigated the location of the former UST to determine if contamination is present in the surrounding environmental media. Hatch Mott MacDonald (HMM) prepared the UST Closure Work Plan and Site Investigation Report, which included a description of the soil and ground water sampling to investigate the environmental media in the area of the former OWSS's associated UST, as well as the results from the investigative efforts. HMM (NJDEP Certification #US00089) also provided oversight of the site investigation activities conducted by subsurface evaluator Jennifer Nulty Kohlsaas (NJDEP Certification #0011809). Copies of the NJDEP Certification for HMM and Jennifer Nutley Kohlsaas are provided in Appendix A. The UST Closure Plan has been developed and implemented in accordance with the New Jersey Technical Requirements



for Site Remediation (N.J.A.C. 7:26E) and the New Jersey Underground Storage Tank Regulation (N.J.A.C. 7:14B-9.3).

1.1 Project Summary/History

At the onset of the project, HMM reviewed the documentation made available by the Port Authority with regard to the history of Hangar 14. The documentation included a historical summary of work performed at Hangar 14 with respect to the removal of the on-site OWSS and its associated UST in 2004.

Specifically, HMM reviewed two documents: (1) A memorandum prepared by the Port Authority, dated June 10, 2004, regarding the removal of the OWSS and the findings of the removal; and (2) A report prepared by Apex Environmental, Inc. (Apex), dated March 30, 2005, and titled *Characterization Report for Newark Liberty International Airport Hangar 14* prepared for United Airlines. The memorandum provides a brief overview of the removal activities conducted with regard to the OWSS and its associated UST. The March 2005 Apex report documents the use of oil containing PCB's at Hangar 14, the removal of the OWSS, and the additional investigation performed to investigate the extent of PCB contamination including the results of soil sampling conducted during the OWSS removal activity. Since the removal of the OWSS and the identification of PCB contamination during the OWSS removal, the Port Authority and United Airlines are addressing the PCB contamination at Hangar 14 and are complying with applicable regulations related to PCB contamination.

Oil Water Separator System (OWSS) Removal

On April 29 and 30, 2004, the Port Authority performed activities associated with the removal and replacement of the 2,000-gallon OWSS located at Hangar 14; the work was performed under the final phase of Contract Number EWR-154.322, Work Order #18. United Airlines occupied Hangar 14 since its original construction. As part of its occupancy, United Airlines utilized the original OWSS. Conti Enterprises, Inc (Conti) of South Plainfield, New Jersey, was retained by the Port Authority to perform general contractor services related to the OWSS removal. Conti subcontracted the environmental portion of the work order to Eisco-NJ (Eisco) of Port Reading, New Jersey. Conti was responsible for the excavation, earthwork and pavement restoration of the OWSS site. Eisco's responsibilities included cleaning inside the OWSS, removal and containerizing wash water and residual liquids and debris using

a Vactor truck, arrangement for the disposal of all removed residual liquids and debris, and transportation of regulated waste materials from the OWSS to an appropriate disposal facility.

The removal of the OWSS began on April 29, 2004 and was completed on April 30, 2004. The removal operations included the use of a Vactor truck to remove all sludge, debris, and wastewater from the system, and the excavation and removal of the concrete OWSS. Included with the removal of the OWSS was the excavation of an associated 550-gallon UST. The Port Authority had no previous knowledge of the UST associated with the OWSS. The Port Authority representative who was on-site during the UST removal reported, as memorialized in the June 10, 2004 Port Authority memorandum, that no apparent discharges from the UST to the soil or ground water were observed during the removal operations. Pieces from the concrete OWSS were sampled for waste classification purposes. The samples were analyzed for PCBs. Based on the analytical results of less than 1 ppm PCBs, the concrete OWSS was determined to be non-hazardous for PCBs. The waste material collected in the Vactor truck was also sampled for PCBs. Aroclor-1248 was detected in concentrations exceeding 50 ppm. Given the results of the Vactor truck waste sampling, further investigation was required at Hangar 14, thus warranting the Apex 2005 PCB investigation.

2.0 PHYSICAL SETTING

Hangar 14 is located in the northern corner of the Airport in the City of Newark, Essex County, New Jersey. The airport property is bounded by Routes 1 & 9 to the north and west, the New Jersey Turnpike to the east, and Interchange 13A off the New Jersey Turnpike to the south and southwest. The Airport is surrounded by the City of Elizabeth to the southwest, Port Elizabeth and Port Newark to the southeast and east, and the City of Newark to the north and west. The northing and easting coordinates for the center of Hangar 14 are North 681762.62 and East 581654.93, as approximated from the New Jersey Geological Survey (USGS), Elizabeth, 7.5-minute topographic quadrangle.

2.1 Site Description

The Airport property is identified as Block 5094, Lot 1 on the City of Newark tax maps, and is comprised of paved surfaces (roadways, runways and parking lots), buildings and support structures covering approximately 2,200 acres. The portion of the Airport that falls within the County of Essex is



under lease with the City of Newark; the remaining portion is in Union County, and is owned by the Port Authority. Current functions of the structures at the Airport include passenger terminals, maintenance garages, storage areas, aircraft hangars, vehicle and aircraft maintenance facilities, aircraft fuel storage facilities, air cargo areas and ancillary facilities. Hangar 14 is situated approximately 500 feet east of Brewster Road. Directly adjacent to the west and north of Hangar 14 are two hangars/maintenance buildings, which are similar in size to Hangar 14. The area adjacent to Hangar 14 to the east is covered with an impervious surface but contains no structures. To the south of Hangar 14 is the Airport taxiway. The former OWSS was located approximately 90 feet from the northeast corner and approximately 25 feet from the eastern wall of Hangar 14. This area is currently covered with an impervious surface and contains no structures.

2.2 Surface Water/ Wetlands

The Airport property is situated within 500 feet of Port Newark and Port Elizabeth channels. Both channels are southeasterly trending waterways, which are tidally influenced. The channels are connected to the Newark Bay. No surface water bodies or wetlands are located at or adjacent to Hangar 14. The closest bodies of water are the Elizabeth Channel drainage swale located approximately 0.15 miles west of Hangar 14 and Weequahic Lake located approximately 1.2 miles west of Hangar 14.

2.3 Site Geology

The Airport, including Hangar 14, is located in the Piedmont physiographic province, Brunswick Group of the Newark Basin. The New Jersey Geological Survey (NJGS) Bedrock Geology Map of Northern New Jersey identifies the underlying bedrock geology as Passaic formation mudstone, siltstone and shale. The NJGS, GIS database identifies the surficial geology as lake bottom deposits. The overburden material encountered on-site is not native soil, but rather fill material that was imported during the creation of the Airport. This report shall refer to these soils as “original fill” material.

2.4 Topography

The Airport is relatively flat with a slight slope toward the Newark and Elizabeth Channels. The Airport is predominantly covered with concrete or asphalt. The elevation of the site is approximately 10 feet above sea level. All surficial drainage is directed toward storm drains located along the streets



throughout the Airport. The topography at Hangar 14 contains the same conditions as those noted for the Airport.

2.5 Hydrogeology

Ground water was encountered during the original removal of the OWSS at approximately 10-11 feet below surface grade. The ground water flow at the Airport is historically southeast towards the Newark Bay.

3.0 TECHNICAL OVERVIEW

This section represents a summary of the prior environmental/closure activities performed at Hangar 14 in connection with the removal of the OWSS, as well as site investigation activities, which were undertaken by the Port Authority with regard to the former 550-gallon UST, associated with the OWSS. After review of the OWSS closure/removal documentation, the Port Authority concluded that further investigation was required. HMM developed a Site Investigation Work Plan (SIWP) to determine if environmental media has been impacted as a result of the tank in accordance with NJDEP requirements. The activities present in the SIWP included the following: the identification of the Area of Potential Environmental Concern (APEC); performance and sampling of soil borings; the collection of soil samples at, and adjacent to, the former location of the tank, and; laboratory analysis of soil samples. Given the size of the UST, NJDEP procedures require the collection and analysis of four soil samples. Five soil borings were sampled to ensure adequate area coverage. Additionally, the SIWP included a contingency for a ground water evaluation based on site conditions. Ground water was encountered during the OWSS decommission and removal investigation, thus the installation and sampling of one monitoring well was also included in the SIWP.

All sampling, for both soil and ground water, was performed in accordance with the NJDEP Field Sampling Procedures Manual dated August 2005 and the Technical Requirements for Site Remediation N.J.A.C 7:26E. A Site Plan depicting the overall layout of the subject site and sampling locations is provided as Figure 2. Soil and ground water samples were submitted to Hampton-Clark Veritech Laboratories (Hampton-Clark Veritech), a New Jersey certified analytical laboratory in Fairfield, New Jersey (New Jersey Laboratory Certification #14622), and analyzed for PP+40 and TPHC. Analytical

data packages received from the laboratory in association with the sampling event, were reviewed by HMM. The data is summarized in Tables 1A-1F and 2A-2F and presented later in this report.

3.1 Previous Investigative Activities at the Site

As previously stated, information provided related to the OWSS removal activities at Hangar 14 were provided in the Port Authority memorandum, dated June 10, 2004 and the *Apex Characterization Report for Newark Liberty International Airport Hangar 14*, dated March 30, 2005. During the excavation activities conducted by Conti, a 550-gallon UST associated with the OWSS was discovered immediately to the west of the OWSS. Conti removed the tank simultaneously with the removal of the OWSS. The Port Authority was unaware of the UST associated with the OWSS until the OWSS was excavated. Information provided in the Port Authority memorandum noted that no apparent discharges to the soil or ground water were observed during the UST removal operations. Although the memorandum notes no visual discharge from the UST, no additional investigation was conducted to verify the integrity of the UST or to document environmental quality of the soil and ground water surrounding the UST location at the time of excavation. The former UST location was backfilled with certified clean fill material and the UST was cleaned and disposed of by Conti.

3.2 Site Investigation Activities

In accordance with the Technical Requirements for Site Remediation (N.J.A.C. 7:26E), HMM undertook Site Investigation (SI) activities to further investigate the former OWSS UST at Hangar 14. The purpose of the investigative efforts described herein was to adequately characterize the site conditions and to obtain sufficient data regarding the environmental media in the former tank area. All activities conducted at the site in connection to the SI activities were documented in a field book by the onsite HMM personnel.

3.2.1 Start-up Activities

The Port Authority identified the location of the former OWSS on April 25, 2006 using survey coordinates in addition to maps and documentation recorded at the time of the OWSS removal by Port Authority's surveyors and a Port Authority representative. The OWSS location was marked-out by Port Authority representatives for the presence of utilities. The area of the former OWSS was repaved after



the removal of the OWSS, therefore, it a drill rig would be utilized to perform the soil borings to obtain the required soil samples. Five soil boring locations were marked out to identify sampling locations.

3.2.2 Post-Excavation Soil Sampling

All soil sampling procedures and requirements were conducted in accordance with the NJDEP Technical Requirements for Site Remediation and the NJDEP Field Sampling Procedures Manual. The soil investigation consisted of the performance and sampling of five soil borings at the former UST area on April 26, 27 and 28, 2006.

The sample locations were logged in a field book along with sampling depth and time of sample collection. The soil samples were collected by a Port Authority representative, using stainless steel trowels and dedicated plastic syringes. Samples were place in 8-ounce glass sample jars with Teflon seals and 2-ounce glass jars with Teflon seals and methanol preservative. A Photo-Ionization Detector (PID) was utilized at all times during soil boring and sampling activity to detect the presence of organic vapors. Any changes above background detected by the PID were recorded in the field book.

Post-excavation samples were transported with proper chain of custody documentation to Hampton-Clark Veritech. All soil samples were analyzed in accordance with the NJDEP's Technical Requirements for Site Remediation document N.J.A.C. 7:26E-2.1(d) within the specified holding times. Hangar 14 sample locations are depicted in Figure 3.

All soil borings were performed through the use of a hallow stem auger drill rig and split spoons. All soil samples were collected below the UST clean fill material. All soil samples were taken from the original fill material (below the UST clean fill material) and were biased to the areas with the highest field screening readings. Because of the composition of the original fill material, which included gravel and cobbles, all soil samples were taken from twelve-inch intervals instead of the regulatory standard six-inch, in order to obtain enough soils for laboratory analysis. Soil samples were collected below ground water if the UST clean fill material/original fill material interface was below the water table.

One soil boring was performed and one soil sample collected on April 26, 2006, from the center of the former UST location's center-line, as identified by the Port Authority mark out. The UST clean fill



material/original fill material interface was observed at 12.0 feet at this location. Ground water was encountered at 11.0 feet. This soil sample (SB-1) was collected at 12.0-13.0 feet. A "duplicate" sample was also taken at 12.0-13.0 feet. A PID recorded a reading of 72.5 parts per million (ppm) at 12.0-13.0.

SB-2 was performed three feet south of SB-1 on April 26, 2006. The UST clean fill material/original fill material interface was observed at 10.0 feet at this location. Ground water was encountered at 11.0 feet. One soil sample (SB-2) was collected at 10.0-11.0 feet. A PID reading of 116.0 ppm was recorded for the sample.

SB-3 was performed on April 27, 2006, three feet north of SB-1. The UST clean fill material/original fill material interface was observed at 13.0 feet. Ground water was encountered at 11.0 feet. One soil sample (SB-3) was collected at 13.0-14.0 feet. A PID reading of 0.4 ppm was recorded for the sample. Previously, during the boring, a higher PID reading of 80.7 was recorded at 8.0-10.0 feet. This soil boring location was identified as within UST clean fill material. As such this boring sample was not collected for analysis, as it was located well above the UST clean fill material/original fill material interface.

SB-4 was installed on April 27, 2006, five feet west of SB-1. The UST clean fill material/original fill material interface was observed at 9.0 –10.0 feet. Ground water was not encountered during the boring. One soil sample (SB-4) was collected at 9.0-10.0 feet. A PID reading of 292 ppm was recorded for the sample.

Because ground water was encountered during soil sampling at sample locations SB-1, SB-2 and SB-3, the location of SB-5 was modified. The mark out for SB-5, located five feet east of SB-1, was altered to represent the location of Monitoring Well 1 (MW-1). A soil sample was obtained from the location during the monitoring well installation. MW-1 was started on April 27, 2006 and finished and developed on April 28, 2006. On April 28, 2006, during the installation, one soil sample was obtained at 13.0 to 14.0 feet. A PID reading of 0.0 ppm was recorded for the sample. Further information regarding the monitoring well installation and ground water sampling is summarized in section 3.2.3 of this report.

All five soil samples were submitted to Hampton-Clark Veritech for PP+40 and TPHC analysis. A copy of the Port Authority Boring Reports, PID Readings and Chain of Custody Records are provided in Appendix B of this report. A discussion of the analytical results from the soil sampling is provided in Section 4.0 of this report and a summary provided in Tables 1A-1F of this report.

3.2.3 Ground Water Sampling

Based on current information, the UST was positioned within the saturated zone. Since soil sampling indicated the presence of ground water shallower than the invert of the UST, a ground water sampling event was performed to assess ground water quality. All ground water sampling procedures and requirements were conducted in accordance with the NJDEP Technical Requirements for Site Remediation and the NJDEP Field Sampling Procedures Manual and were documented within the field book.

One monitoring well was installed on April 28, 2006, five feet southeast of the former UST, in a down-gradient location, as identified through topography and available facility information. The monitoring well was installed at the location of the SB-5 boring mark out. The well was installed and constructed in accordance with NJDEP requirements including the use of 4-inch-diameter PVC screen and riser. The total depth of the monitoring well is 18 feet below grade. The well was screened from 6 to 16 feet. The well screen was 0.010-inch slot size. The filter pack was #1 sand. A surface seal of a bentonite-cement grout ensured that stormwater runoff could not enter the well. The well was developed using surging and pumping methods until the discharge was relatively clear.

As per NJDEP requirements, the well was allowed to equilibrate for a period of over two weeks. After allowing for equilibration, two ground water samples (one sample and one duplicate sample) were collected from the well on May 16, 2006 with standard 3-5 volume purging and sampling methods. Ground water chemical parameters, including pH, temperature, oxidation/reduction potential, specific conductance, and dissolved oxygen, were measured and recorded at the beginning, during and end of the purge. Please see Appendix C for a copy of the Monitoring Well Certification Form B Location Certificate and Appendix D for a copy of the ground water purge data sheet. The ground water sample was submitted to a New Jersey certified laboratory, Hampton-Clark Veritech, for PP+40 and TPHC

analysis. A summary of the analytical results from the ground water sampling is provided in Section 4.0 and in Tables 2A-2F of this report.

4.0 RESULTS AND CONCLUSIONS

Based on observations during the OWSS decommissioning, the Port Authority implemented actions to properly investigate and close the UST associated with the OWSS including the collection of post-excavation soil and ground water samples. The Analytical Data is provided under Appendix E of this report. The Electronic Data Deliverables (EDD) is provided as an attachment to Appendix E.

4.1 Analytical Results of Soil Investigation

The soil samples were analyzed for PP+40 and TPHC. Analytical results were compared to NJDEP's soil cleanup criteria standards: RDCSCC, NRDCSCC and IGWSCC. The analytical results from the sampling event are presented below. The results have been presented by contaminant class.

VOLATILE ORGANIC COMPOUNDS

No levels of VOCs were detected above the RDCSCC, NRDCSCC or IGWSCC standards, thus no additional investigation for VOCs is warranted.

BASE NEUTRAL/ACID EXTRACTABLE COMPOUNDS

Review of the soil sampling results indicate elevated levels of three base neutral compounds above the RDCSCC: benzo(b)fluoranthene, benzo(a)pyrene and benzo(a)anthracene. Benzo(b)fluoranthene was detected above the RDCSCC in SB-1DUP at 0.97 mg/kg, in SB-2 at 1.8mg/kg, and in SB-3 at 0.99 mg/kg ; Benzo(a)pyrene was detected about the RDCSCC in SB-2 at 1.3mg/kg, and in SB-3 at 0.71 mg/kg; Benzo(a)anthracene was detected about the RDCSCC in SB-2 at 1.8mg/kg. These three base neutral compounds are typical of historic fill. In addition, although the results for these base neutral compounds were detected at concentrations above the RDCSCC standard, all results are below the NRDCSCC standards. Given the presence of historic fill material (original fill material) at the Airport and the Site's non-residential usage, it is appropriate to assign the NRDCSCC to this Site. Further, no compounds were detected above the IGWSCC. As such, no additional investigation or remediation is warranted as to the presence of these compounds.



PRIORITY POLLUTANT METALS

No levels of metals were detected above the RDCSCC, NRDCSCC or IGWSCC standards, thus no additional investigation for metals is warranted.

PCBs

Review of the soil sampling results indicated the presence of two PCBs at concentrations above the RDCSCC and NRDCSCC: Aroclor-1242 and Aroclor-1254. Aroclor-1242 was detected in SB-1 at 6.3 mg/kg, in SB-1DUP at 5.1 mg/kg, in SB-2 at 30 mg/kg, and in SB-4 at 14 mg/kg. Aroclor-1254 was detected in SB-4 at 2.5 mg/kg. The Port Authority and United Airlines are currently addressing the extent of the PCB soil contamination within the area of the former OWSS, thus no further investigation of soils is proposed with regard to the former UST.

PESTICIDES

No levels of pesticides were detected above the RDCSCC, NRDCSCC or IGWSCC standards, thus no additional investigation is warranted.

CYANIDE, TOTAL PHENOLICS

No levels of cyanide or total phenolics were above RDCSCC, NRDCSCC or IGWSCC standards, thus no additional investigation is warranted.

TPHC

The NJDEP has not established a cleanup criteria for TPHC in soil. However, it utilizes a threshold value of 10,000 mg/kg as guidance for total organic contaminants. Review of the soil sampling results indicated TPHC was detected in SB-4 at 13,000 mg/kg. All other results were below the threshold concentration. Given that no individual organic compounds were detected above the corresponding NRDCSCC standards, no further investigation is proposed with regard to TPHC in soil.

4.2 Results of the Ground Water Investigation

Two samples (one sample and one duplicate sample) were collected from the monitoring well during the ground water sampling event. The ground water samples were analyzed for PP+40 and TPHC.

Analytical results were compared to New Jersey's GWQC. Results are presented by contaminant class below.

VOCs

No levels of VOCs were detected above the GWQC, thus no additional investigation is warranted.

BNAs

No levels of BNAs were detected above the GWQC, thus no additional investigation is warranted.

METALS

Review of the ground water sampling results indicated levels of five metals above the GWQC. Mercury was detected at 3.8 ug/l and 2.4 ug/l, above its GWQC of 2 ug/l. Arsenic was detected at 37 ug/l and 26 ug/l, above its GWQC of 3 ug/l. Cadmium was detected at 5 ug/L, above its GWQC of 4 ug/l. Chromium was detected at 74 ug/l, above its GWQC of 70 ug/l. Lead was detected at 1200 ug/l and 860 ug/l, above its GWQC of 5 ug/l. These metals are typical of ground water samples from within historic fill, thus the elevated levels of metals identified in the ground water at Hangar 14 are most likely a result of background conditions and historic fill material (original fill material) and not associated with the UST.

PCBs

Analytical results indicated elevated levels of one PCB above the GWQC. Aroclor-1242 was detected in the ground water sample and the duplicate sample at 11ug/L and 13ug/L respectively, which is above the total PCBs GWQC of 0.5 ug/l. The Port Authority and United Airlines are currently addressing the extent of the PCB ground water contamination within the area of the former OWSS, thus no further investigation is proposed with regard to the former UST.

PESTICIDES

No levels of pesticides were detected above the GWQC, thus no additional investigation is warranted.

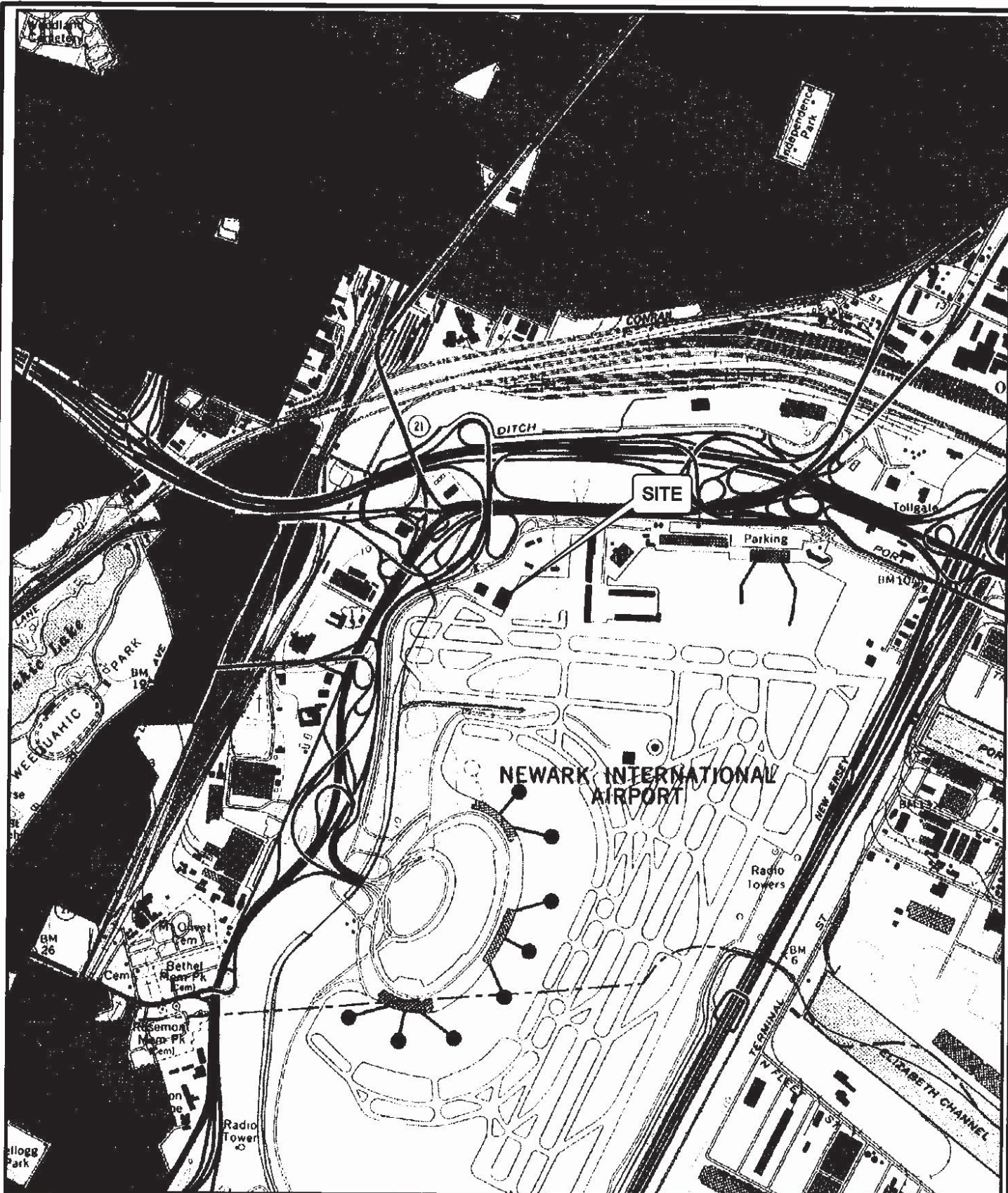
CYANIDE, TOTAL PHENOLICS, TPHC

No levels of cyanide were detected above GWQC, thus no additional investigation is warranted for cyanide. It should be noted that no standards are currently in place in New Jersey for total phenolics or TPHC. However, given that no individual organic compounds were detected above the corresponding GWQC, no further investigation is proposed with regard to TPHC in ground water.

5.0 SITE INVESTIGATION SUMMARY

The OWSS included a 550-gallon UST, which was decommissioned in 2004. Given the analytical results from the 2006 site investigation, no further investigation is warranted or proposed for the UST. The PCB contamination within the soil and ground water is being addressed by the Port Authority and United Airlines as a separate issue.

FIGURES



Source:
United States Geological Survey, Elizabeth, NJ-NY 7.5 minute
Topographic Quadrangle, 1967, Photorevised 1981

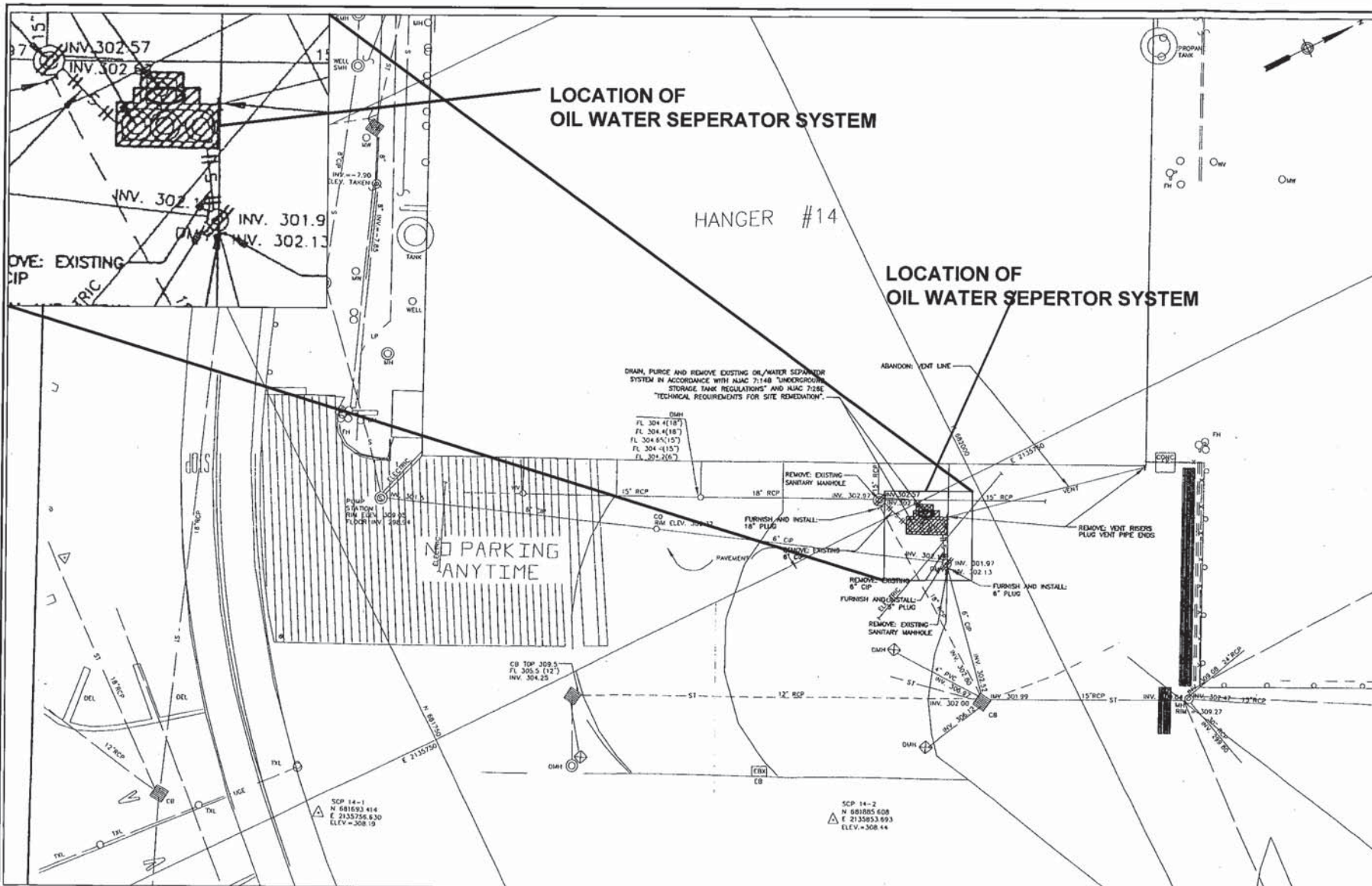
This map was developed using New Jersey Department of Environmental
Protection Geographic Information System digital data, but this secondary
product has not been verified by NJDEP and is not state-authorized.

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	THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY HANGER 14 NEWARK INTERNATIONAL AIRPORT CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY FIGURE 1 - SITE LOCATION MAP			
	27 Bleeker Street Millburn, New Jersey 07041	Designed BCK	Drawn CMT	Checked JNK

Date
1/26/2008



**THE PORT AUTHORITY
OF NY & NJ**

THE LOUIS BERGER GROUP, INC.
30 VREELAND ROAD
FLORHAM PARK, NJ 07932

ANDREW W. SCHUELLER NJ P.E. #38347

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**NEWARK
INTERNATIONAL
AIRPORT**

CIVIL
Table
**OIL/WATER
SEPARATORS AT
BUILDINGS 14 & 75**

**REMOVALS PLAN -
BUILDING 14**

This drawing subject to conditions in contract.
All inventions, ideas, designs and methods
herein are reserved to Port Authority and
may not be used without its written consent.

CC	CEM	AMS
Designed by	Drawn by	Checked by
Date	JUNE 11, 2002	Date



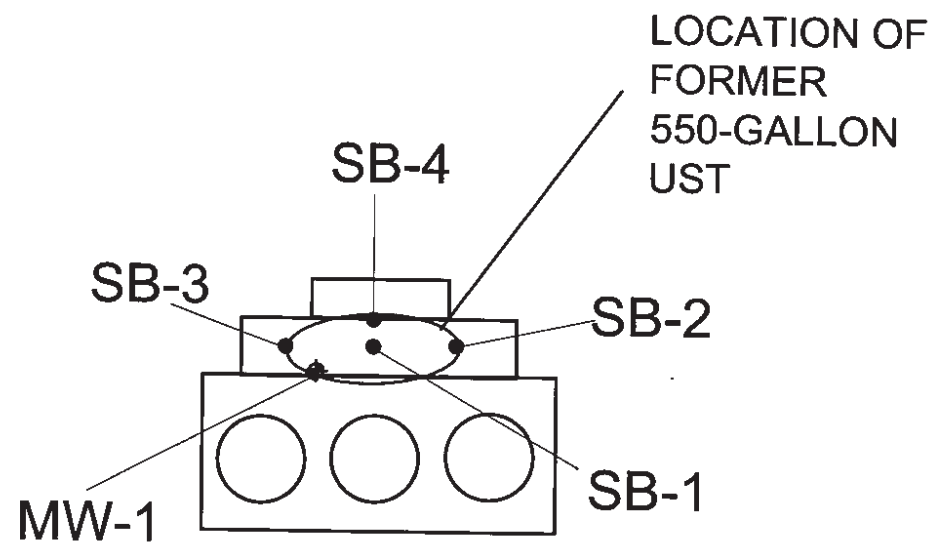
**Hatch Mott
MacDonald**
Certificate No. 246A28075000

27 Brecker Street
Milburn, New Jersey 07041

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
NEWARK INTERNATIONAL AIRPORT
HANGER 14
FIGURE 2
SITE LAYOUT
2234600A01

Designed	Drawn	Checked	Approved	Date

Hangar 14



 **Hatch Mott
MacDonald**
Certificate No. 24GA28075000

27 Bleeker Street
Milburn, New Jersey 07041

THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY
NEWARK INTERNATIONAL AIRPORT

HANGAR 14
FIGURE 3
SAMPLE LOCATIONS
223460AA01

Designed	Drawn	Checked	Approved	Date

TABLES

TABLE 1A
SOIL ANALYTICAL RESULTS
VOLITILE ORGANIC COUMPOUNDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06				H14-SB-02-042606SO06			
				LAB ID: AC23158-001				AC23158-002				AC23158-003			
				COLLECT DATE: 4/26/2006				4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Total Volatile Tic				35.3	J	NA	mg/Kg	38.5	J	NA	mg/Kg	232.2	J	NA	mg/Kg
1,1,1,2-Tetrachloroethane	170	310		ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,1,1-Trichloroethane	210	1000 (d)	50	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,1,2,2-Tetrachloroethane	34	70 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,1,2-Trichloroethane	22	420	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,1-Dichloroethane	570	1000 (d)	10	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,1-Dichloroethene	8	150	10	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,2-Dichloroethane	6	24	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
1,2-Dichloropropane	10	43	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
2-Butanone	1000 (d)	1000 (d)	50	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
2-Chloroethylvinylether	NA	NA	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
2-Hexanone	NA	NA	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
4-Methyl-2-Pentanone	1000 (d)	1000 (d)	50	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Acetone	1000 (d)	1000 (d)	100	ND		2.7	mg/Kg	ND		2.9	mg/Kg	ND		2.9	mg/Kg
Acrolein	NA	NA	NA	ND		2.7	mg/Kg	ND		2.9	mg/Kg	ND		2.9	mg/Kg
Acrylonitrile	1	5	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Benzene	3	13	1	ND		0.11	mg/Kg	ND		0.11	mg/Kg	ND		0.12	mg/Kg
Bromodichloromethane	11	46	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Bromoform	86	370	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Bromomethane	79	1000 (d)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Carbon disulfide	NA	NA	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Carbon tetrachloride	2 (k)	4 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Chlorobenzene	37	680	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Chloroethane	NA	NA	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Chloroform	19 (k)	28 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Chloromethane	520	1000 (d)	10	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Cis-1,2-Dichloroethene	79	1000 (d)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Cis-1,3-Dichloropropene	4	5 (k)	NA	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Dibromochloromethane	110	1000 (d)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Ethylbenzene	1000 (d)	1000 (d)	100	ND		0.11	mg/Kg	ND		0.11	mg/Kg	ND		0.12	mg/Kg
M&p-Xylenes	410	1000	67	ND		0.22	mg/Kg	ND		0.23	mg/Kg	0.13	J	0.23	mg/Kg
Methylene chloride	49	210	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
O-Xylene	410	1000	67	ND		0.11	mg/Kg	ND		0.11	mg/Kg	ND		0.12	mg/Kg
Styrene	23	97	100	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Tetrachloroethene	4 (k)	6 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Toluene	1000 (d)	1000 (d)	500	ND		0.11	mg/Kg	ND		0.11	mg/Kg	ND		0.12	mg/Kg
Trans-1,2-Dichloroethene	1000 (d)	1000 (d)	50	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Trans-1,3-Dichloropropene	4	5 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Trichloroethene	23	54 (k)	1	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg
Vinyl chloride	2	7	10	ND		0.54	mg/Kg	ND		0.57	mg/Kg	ND		0.59	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

d - Health based criteria exceeds the 1000 mg/kg maximum for total volatile organic contaminants.

k - Criteria based on inhalation exposure pathway, which yielded a more stringent criterion than the incidental exposure pathway.

TABLE 1A
SOIL ANALYTICAL RESULTS
VOLITILE ORGANIC COUMPOUNDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-03-042706SO06				H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-001				AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/27/2006				4/28/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
:TotalVolatileTic				4.15	J	NA	mg/Kg	173.4	J	NA	mg/Kg	ND		NA	mg/Kg
1,1,1,2-Tetrachloroethane	170	310		ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,1,1-Trichloroethane	210	1000 (d)	50	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,1,2,2-Tetrachloroethane	34	70 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,1,2-Trichloroethane	22	420	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,1-Dichloroethane	570	1000 (d)	10	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,1-Dichloroethene	8	150	10	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,2-Dichloroethane	6	24	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
1,2-Dichloropropane	10	43	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
2-Butanone	1000 (d)	1000 (d)	50	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
2-Chloroethylvinylether	NA	NA	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
2-Hexanone	NA	NA	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
4-Methyl-2-Pentanone	1000 (d)	1000 (d)	50	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Acetone	1000 (d)	1000 (d)	100	ND		3	mg/Kg	6		2.9	mg/Kg	ND		2.6	mg/Kg
Acrolein	NA	NA	NA	ND		3	mg/Kg	ND		2.9	mg/Kg	ND		2.6	mg/Kg
Acrylonitrile	1	5	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Benzene	3	13	1	ND		0.12	mg/Kg	ND		0.12	mg/Kg	ND		0.11	mg/Kg
Bromodichloromethane	11	46	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Bromoform	86	370	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Bromomethane	79	1000 (d)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Carbon disulfide	NA	NA	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Carbon tetrachloride	2 (k)	4 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Chlorobenzene	37	680	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Chloroethane	NA	NA	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Chloroform	19 (k)	28 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Chloromethane	520	1000 (d)	10	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Cis-1,2-Dichloroethene	79	1000 (d)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Cis-1,3-Dichloropropene	4	5 (k)	NA	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Dibromochloromethane	110	1000 (d)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Ethylbenzene	1000 (d)	1000 (d)	100	ND		0.12	mg/Kg	ND		0.12	mg/Kg	ND		0.11	mg/Kg
M&p-Xylenes	410	1000	67	ND		0.24	mg/Kg	ND		0.23	mg/Kg	ND		0.21	mg/Kg
Methylene chloride	49	210	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
O-Xylene	410	1000	67	ND		0.12	mg/Kg	ND		0.12	mg/Kg	ND		0.11	mg/Kg
Styrene	23	97	100	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Tetrachloroethene	4 (k)	6 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Toluene	1000 (d)	1000 (d)	500	ND		0.12	mg/Kg	ND		0.12	mg/Kg	ND		0.11	mg/Kg
Trans-1,2-Dichloroethene	1000 (d)	1000 (d)	50	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Trans-1,3-Dichloropropene	4	5 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Trichloroethene	23	54 (k)	1	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg
Vinyl chloride	2	7	10	ND		0.6	mg/Kg	ND		0.58	mg/Kg	ND		0.53	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

d - Health based criteria exceeds the 1000 mg/kg maximum for total volatile organic contaminants.

k - Criteria based on inhalation exposure pathway, which yielded a more stringent criterion than the incidental exposure pathway.

TABLE 1B
SOIL ANALYTICAL RESULTS
BASE NEUTRAL ACIDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06			
				LAB ID: AC23158-001				AC23158-002			
				COLLECT DATE: 4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units
TotalSemiVolatileTic				53.72	J	NA	mg/Kg	64.05	J	NA	mg/Kg
1,2,4-Trichlorobenzene	68	1200	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
1,2-Dichlorobenzene	5100	10000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
1,2-Diphenylhydrazine	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
1,3-Dichlorobenzene	5100	10000 c	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
1,4-Dichlorobenzene	570	10000 c	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,4,5-Trichlorophenol	5600	10,000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,4,6-Trichlorophenol	62	270	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,4-Dichlorophenol	170	3100	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,4-Dimethylphenol	1100	10,000 c	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,4-Dinitrophenol	110	2100	10	ND		1	mg/Kg	ND		1	mg/Kg
2,4-Dinitrotoluene	1 (I)	4 (I)	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2,6-Dinitrotoluene	1 (I)	4 (I)	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2-Chloronaphthalene	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2-Chlorophenol	280	5200	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2-Methylnaphthalene	NA	NA	NA	0.16	J	0.4	mg/Kg	0.19	J	0.42	mg/Kg
2-Methylphenol	2800	10,000 c	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2-Nitroaniline	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
2-Nitrophenol	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
3&4-Methylphenol	2800	10000	NA	0.88		0.4	mg/Kg	0.69		0.42	mg/Kg
3,3'-Dichlorobenzidine	2	6	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
3-Nitroaniline	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND		2	mg/Kg	ND		2.1	mg/Kg
4-Bromophenyl-phenylether	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4-Chloro-3-methylphenol	10,000 c	10,000 c	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4-Chloroaniline	230	4200	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4-Chlorophenyl-phenylether	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4-Nitroaniline	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
4-Nitrophenol	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Acenaphthene	3400	10000	100	0.095	J	0.4	mg/Kg	0.13	J	0.42	mg/Kg
Acenaphthylene	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Anthracene	10000	10000	100	0.093	J	0.4	mg/Kg	0.14	J	0.42	mg/Kg
Benidine	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Benzo[a]anthracene	0.9	4	500	0.17	J	0.4	mg/Kg	0.61		0.42	mg/Kg
Benzo[a]pyrene	0.66 (f)	0.66 (f)	100	0.18	J	0.4	mg/Kg	0.59		0.42	mg/Kg
Benzo[b]fluoranthene	0.9	4	50	0.2	J	0.4	mg/Kg	0.97		0.42	mg/Kg
Benzo[g,h,i]perylene	NA	NA	NA	0.13	J	0.4	mg/Kg	0.31	J	0.42	mg/Kg
Benzo[k]fluoranthene	0.9	4	500	0.09	J	0.4	mg/Kg	0.31	J	0.42	mg/Kg
Benzyl alcohol	10,000 c	10,000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroethoxy)methane	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroethyl)Ether	0.66 (f)	3	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroisopropyl)ether	2300	10,000 c	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Bis(2-Ethylhexyl)phthalate	49	210	100	0.73		0.4	mg/Kg	0.63		0.42	mg/Kg
Butylbenzylphthalate	1100	10,000 c	100	0.18	J	0.4	mg/Kg	0.14	J	0.42	mg/Kg
Carbazole	NA	NA	NA	ND		0.4	mg/Kg	0.13	J	0.42	mg/Kg
Chrysene	9	40	500	0.16	J	0.4	mg/Kg	0.74		0.42	mg/Kg
Dibenzo[a,h]Anthracene	0.66 (f)	0.66 (f)	100	ND		0.4	mg/Kg	0.1	J	0.42	mg/Kg
Dibenzofuran	NA	NA	NA	0.057	J	0.4	mg/Kg	0.07	J	0.42	mg/Kg
Diethylphthalate	10,000 c	10,000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Dimethylphthalate	10,000 c	10,000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Di-n-butylphthalate	5700	10,000 c	100	0.053	J	0.4	mg/Kg	0.051	J	0.42	mg/Kg
Di-n-octylphthalate	1100	10,000 c	100	0.12	J	0.4	mg/Kg	0.078	J	0.42	mg/Kg
Fluoranthene	2300	10,000 c	100	0.45		0.4	mg/Kg	2.1		0.42	mg/Kg
Fluorene	2300	10,000 c	100	0.083	J	0.4	mg/Kg	0.2	J	0.42	mg/Kg
Hexachlorobenzene	0.66 (f)	2	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Hexachlorobutadiene	1	21	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Hexachlorocyclopentadiene	400	7300	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Hexachloroethane	6	100	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Indeno[1,2,3-cd]pyrene	0.9	4	500	0.1	J	0.4	mg/Kg	0.33	J	0.42	mg/Kg
Isophorone	1100	10,000 c	50	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Naphthalene	230	4200	100	0.1	J	0.4	mg/Kg	0.1	J	0.42	mg/Kg
Nitrobenzene	28	520	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
N-Nitrosodimethylamine	NA	NA	NA	ND		0.4	mg/Kg	ND		0.42	mg/Kg
N-Nitroso-Di-N-Propylamine	0.66 (f)	0.66 (f)	10	ND		0.4	mg/Kg	ND		0.42	mg/Kg
N-Nitrosodiphenylamine	140	600	100	ND		0.4	mg/Kg	ND		0.42	mg/Kg
Pentachlorophenol	6	24	100	ND		1	mg/Kg	ND		1	mg/Kg
Phenanthrene	NA	NA	NA	0.37	J	0.4	mg/Kg	0.75		0.42	mg/Kg
Phenol	10000	10000	50	3.1		0.4	mg/Kg	1.5		0.42	mg/Kg
Pyrene	1700	10,000 c	100	0.38	J	0.4	mg/Kg	2		0.42	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD - Indicates Exceedence

c - Health based criteria exceeds the 10,000 mg/Kg maximum for total organic contaminants.

f - Health based criterion is lower than analytical limits, clean-up criterion is based on practical quantitation level.

TABLE 1B
SOIL ANALYTICAL RESULTS
BASE NEUTRAL ACIDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-02-042606SO06				H14-SB-03-042706SO06			
				LAB ID: AC23158-003				AC23180-001			
				COLLECT DATE: 4/26/2006				4/27/2006			
				Result	Fig	RL	Units	Result	Fig	RL	Units
:TotalSemiVolatileTic				79.1	J	NA	mg/Kg	87.95	J	NA	mg/Kg
1,2,4-Trichlorobenzene	68	1200	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
1,2-Dichlorobenzene	5100	10000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
1,2-Diphenylhydrazine	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
1,3-Dichlorobenzene	5100	10000 c	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
1,4-Dichlorobenzene	570	10000 c	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,4,5-Trichlorophenol	5600	10,000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,4,6-Trichlorophenol	62	270	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,4-Dichlorophenol	170	3100	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,4-Dimethylphenol	1100	10,000 c	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,4-Dinitrophenol	110	2100	10	ND		1	mg/Kg	ND		1.1	mg/Kg
2,4-Dinitrotoluene	1 (f)	4 (f)	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2,6-Dinitrotoluene	1 (f)	4 (f)	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2-Chloronaphthalene	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2-Chlorophenol	280	5200	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2-Methylnaphthalene	NA	NA	NA	1.9		0.41	mg/Kg	0.068	J	0.42	mg/Kg
2-Methylphenol	2800	10,000 c	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2-Nitroaniline	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
2-Nitrophenol	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
3&4-Methylphenol	2800	10000	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
3,3'-Dichlorobenzidine	2	6	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
3-Nitroaniline	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND		2	mg/Kg	ND		2.1	mg/Kg
4-Bromophenyl-phenylether	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4-Chloro-3-methylphenol	10,000 c	10,000 c	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4-Chloroaniline	230	4200	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4-Chlorophenyl-phenylether	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4-Nitroaniline	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
4-Nitrophenol	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Acenaphthene	3400	10000	100	0.79		0.41	mg/Kg	0.12	J	0.42	mg/Kg
Acenaphthylene	NA	NA	NA	0.19	J	0.41	mg/Kg	ND		0.42	mg/Kg
Anthracene	10000	10000	100	1		0.41	mg/Kg	0.19	J	0.42	mg/Kg
Benidine	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Benzo[a]anthracene	0.9	4	500	1.8		0.41	mg/Kg	0.59		0.42	mg/Kg
Benzo[a]pyrene	0.66 (f)	0.66 (f)	100	1.3		0.41	mg/Kg	0.71		0.42	mg/Kg
Benzo[b]fluoranthene	0.9	4	50	1.8		0.41	mg/Kg	0.99		0.42	mg/Kg
Benzo[g,h,i]perylene	NA	NA	NA	0.75		0.41	mg/Kg	0.54		0.42	mg/Kg
Benzo[k]fluoranthene	0.9	4	500	0.62		0.41	mg/Kg	0.35	J	0.42	mg/Kg
Benzyl alcohol	10,000 c	10,000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroethoxy)methane	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroethyl)Ether	0.66 (f)	3	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Bis(2-Chloroisopropyl)ether	2300	10,000 c	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Bis(2-Ethylhexyl)phthalate	49	210	100	1.9		0.41	mg/Kg	0.74		0.42	mg/Kg
Butylbenzylphthalate	1100	10,000 c	100	ND		0.41	mg/Kg	0.17	J	0.42	mg/Kg
Carbazole	NA	NA	NA	0.63		0.41	mg/Kg	0.18	J	0.42	mg/Kg
Chrysene	9	40	500	2		0.41	mg/Kg	0.64		0.42	mg/Kg
Dibenz[a,h]Anthracene	0.66 (f)	0.66 (f)	100	0.21	J	0.41	mg/Kg	0.15	J	0.42	mg/Kg
Dibenzofuran	NA	NA	NA	0.73		0.41	mg/Kg	0.12	J	0.42	mg/Kg
Diethylphthalate	10,000 c	10,000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Dimethylphthalate	10,000 c	10,000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Di-n-butylphthalate	5700	10,000 c	100	0.28	J	0.41	mg/Kg	0.048	J	0.42	mg/Kg
Di-n-octylphthalate	1100	10,000 c	100	0.62		0.41	mg/Kg	ND		0.42	mg/Kg
Fluoranthene	2300	10,000 c	100	5		0.41	mg/Kg	1.4		0.42	mg/Kg
Fluorene	2300	10,000 c	100	1.2		0.41	mg/Kg	0.14	J	0.42	mg/Kg
Hexachlorobenzene	0.66 (f)	2	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Hexachlorobutadiene	1	21	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Hexachlorocyclopentadiene	400	7300	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Hexachloroethane	6	100	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Indeno[1,2,3-cd]pyrene	0.9	4	500	0.7		0.41	mg/Kg	0.51		0.42	mg/Kg
Isophorone	1100	10,000 c	50	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Naphthalene	230	4200	100	2.3		0.41	mg/Kg	0.078	J	0.42	mg/Kg
Nitrobenzene	28	520	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
N-Nitrosodimethylamine	NA	NA	NA	ND		0.41	mg/Kg	ND		0.42	mg/Kg
N-Nitroso-Di-N-Propylamine	0.66 (f)	0.66 (f)	10	ND		0.41	mg/Kg	ND		0.42	mg/Kg
N-Nitrosodiphenylamine	140	600	100	ND		0.41	mg/Kg	ND		0.42	mg/Kg
Pentachlorophenol	6	24	100	ND		1	mg/Kg	ND		1.1	mg/Kg
Phenanthrene	NA	NA	NA	6.1		0.41	mg/Kg	0.95		0.42	mg/Kg
Phenol	10000	10000	50	0.74		0.41	mg/Kg	0.073	J	0.42	mg/Kg
Pyrene	1700	10,000 c	100	4.2		0.41	mg/Kg	1.1		0.42	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

c - Health based criteria exceeds the 10,000 mg/kg maximum for total organic contaminants.

f - Health based criterion is lower than analytical limits, clean-up criterion is based on practical quantitation level.

TABLE 1B
SOIL ANALYTICAL RESULTS
BASE NEUTRAL ACIDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/28/2006			
				Result	Fig	RL	Units	Result	Fig	RL	Units
:TotalSemiVolatileTic				510.9	J	NA	mg/Kg	89.95	J	NA	mg/Kg
1,2,4-Trichlorobenzene	68	1200	100	ND		2	mg/Kg	ND		0.38	mg/Kg
1,2-Dichlorobenzene	5100	10000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
1,2-Diphenylhydrazine	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
1,3-Dichlorobenzene	5100	10000 c	100	ND		2	mg/Kg	ND		0.38	mg/Kg
1,4-Dichlorobenzene	570	10000 c	100	ND		2	mg/Kg	ND		0.38	mg/Kg
2,4,5-Trichlorophenol	5600	10,000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
2,4,6-Trichlorophenol	62	270	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2,4-Dichlorophenol	170	3100	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2,4-Dimethylphenol	1100	10,000 c	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2,4-Dinitrophenol	110	2100	10	ND		4.9	mg/Kg	ND		0.96	mg/Kg
2,4-Dinitrotoluene	1 (f)	4 (f)	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2,6-Dinitrotoluene	1 (f)	4 (f)	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2-Chloronaphthalene	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
2-Chlorophenol	280	5200	10	ND		2	mg/Kg	ND		0.38	mg/Kg
2-Methylnaphthalene	NA	NA	NA	6.9		2	mg/Kg	ND		0.38	mg/Kg
2-Methylphenol	2800	10,000 c	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
2-Nitroaniline	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
2-Nitrophenol	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
3,4-Methylphenol	2800	10000	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
3,3'-Dichlorobenzidine	2	6	100	ND		2	mg/Kg	ND		0.38	mg/Kg
3-Nitroaniline	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
4,6-Dinitro-2-methylphenol	NA	NA	NA	ND		9.8	mg/Kg	ND		1.9	mg/Kg
4-Bromophenyl-phenylether	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
4-Chloro-3-methylphenol	10,000 c	10,000 c	100	ND		2	mg/Kg	ND		0.38	mg/Kg
4-Chloroaniline	230	4200	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
4-Chlorophenyl-phenylether	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
4-Nitroaniline	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
4-Nitrophenol	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
Acenaphthene	3400	10000	100	0.46	J	2	mg/Kg	0.059	J	0.38	mg/Kg
Acenaphthylene	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
Anthracene	10000	10000	100	0.3	J	2	mg/Kg	0.072	J	0.38	mg/Kg
Benidine	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
Benzo[a]anthracene	0.9	4	500	0.59	J	2	mg/Kg	0.29	J	0.38	mg/Kg
Benzo[a]pyrene	0.66 (f)	0.66 (f)	100	0.49	J	2	mg/Kg	0.31	J	0.38	mg/Kg
Benzo[b]fluoranthene	0.9	4	50	0.63	J	2	mg/Kg	0.41		0.38	mg/Kg
Benzo[g,h,i]perylene	NA	NA	NA	0.35	J	2	mg/Kg	0.2	J	0.38	mg/Kg
Benzo[k]fluoranthene	0.9	4	500	0.3	J	2	mg/Kg	0.16	J	0.38	mg/Kg
Benzyl alcohol	10,000 c	10,000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
Bis(2-Chloroethoxy)methane	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
Bis(2-Chloroethyl)Ether	0.66 (f)	3	10	ND		2	mg/Kg	ND		0.38	mg/Kg
Bis(2-Chloroisopropyl)ether	2300	10,000 c	10	ND		2	mg/Kg	ND		0.38	mg/Kg
Bis(2-Ethylhexyl)phthalate	49	210	100	1.2	J	2	mg/Kg	0.21	J	0.38	mg/Kg
Butylbenzylphthalate	1100	10,000 c	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Carbazole	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
Chrysene	9	40	500	0.57	J	2	mg/Kg	0.27	J	0.38	mg/Kg
Dibenzo[a,h]Anthracene	0.66 (f)	0.66 (f)	100	ND		2	mg/Kg	0.065	J	0.38	mg/Kg
Dibenzofuran	NA	NA	NA	0.22	J	2	mg/Kg	ND		0.38	mg/Kg
Diethylphthalate	10,000 c	10,000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
Dimethylphthalate	10,000 c	10,000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
Di-n-butylphthalate	5700	10,000 c	100	0.27	J	2	mg/Kg	0.064	J	0.38	mg/Kg
Di-n-octylphthalate	1100	10,000 c	100	0.65	J	2	mg/Kg	ND		0.38	mg/Kg
Fluoranthene	2300	10,000 c	100	1.6	J	2	mg/Kg	0.47		0.38	mg/Kg
Fluorene	2300	10,000 c	100	0.51	J	2	mg/Kg	0.069	J	0.38	mg/Kg
Hexachlorobenzene	0.66 (f)	2	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Hexachlorobutadiene	1	21	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Hexachlorocyclopentadiene	400	7300	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Hexachloroethane	6	100	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Indeno[1,2,3-cd]pyrene	0.9	4	500	0.29	J	2	mg/Kg	0.2	J	0.38	mg/Kg
Isophorone	1100	10,000 c	50	ND		2	mg/Kg	ND		0.38	mg/Kg
Naphthalene	230	4200	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Nitrobenzene	28	520	10	ND		2	mg/Kg	ND		0.38	mg/Kg
N-Nitrosodimethylamine	NA	NA	NA	ND		2	mg/Kg	ND		0.38	mg/Kg
N-Nitroso-Di-N-Propylamine	0.66 (f)	0.66 (f)	10	ND		2	mg/Kg	ND		0.38	mg/Kg
N-Nitrosodiphenylamine	140	600	100	ND		2	mg/Kg	ND		0.38	mg/Kg
Pentachlorophenol	6	24	100	ND		4.9	mg/Kg	ND		0.96	mg/Kg
Phenanthrene	NA	NA	NA	1.4	J	2	mg/Kg	0.23	J	0.38	mg/Kg
Phenol	10000	10000	50	ND		2	mg/Kg	ND		0.38	mg/Kg
Pyrene	1700	10,000 c	100	1.3	J	2	mg/Kg	0.45		0.38	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Exceedence

c - Health based criteria exceeds the 10,000 mg/kg maximum for total organic contaminants.

f - Health based criterion is lower than analytical limits, clean-up criterion is based on practical quantitation level.

TABLE 1C
SOIL ANALYTICAL RESULTS
METALS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06				H14-SB-02-042606SO06			
				LAB ID: AC23158-001				AC23158-002				AC23158-003			
				COLLECT DATE: 4/26/2006				4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Mercury	14	270	NA	0.28		0.1	mg/Kg	0.25		0.1	mg/Kg	0.2		0.1	mg/Kg
Antimony	14	340	NA	ND		2.4	mg/Kg	ND		2.5	mg/Kg	ND		2.4	mg/Kg
Arsenic	20	20	NA	ND		2.4	mg/Kg	ND		2.5	mg/Kg	3.3		2.4	mg/Kg
Barium	700	4700 (n)	NA	34		12	mg/Kg	43		12	mg/Kg	150		12	mg/Kg
Beryllium	1(f) / 2(e)	1(f) / 2(e)	NA	ND		0.72	mg/Kg	ND		0.75	mg/Kg	ND		0.73	mg/Kg
Cadmium	39	100	NA	ND		0.72	mg/Kg	ND		0.75	mg/Kg	ND		0.73	mg/Kg
Chromium	120000	(j)	NA	ND		6	mg/Kg	ND		6.2	mg/Kg	11		6.1	mg/Kg
Copper	600 (m)	600 (m)	NA	15		6	mg/Kg	160		6.2	mg/Kg	38		6.1	mg/Kg
Lead	400(p)	600(q)	NA	40		6	mg/Kg	44		6.2	mg/Kg	190		6.1	mg/Kg
Nickel	250	2400 (k), (n)	NA	6.5		6	mg/Kg	9.1		6.2	mg/Kg	8.1		6.1	mg/Kg
Selenium	63	3100	NA	ND		2.2	mg/Kg	ND		2.2	mg/Kg	ND		2.2	mg/Kg
Silver	110	4100 (n)	NA	ND		3	mg/Kg	ND		3.1	mg/Kg	ND		3	mg/Kg
Thallium	2 (f)	2 (f)	NA	ND		1.4	mg/Kg	ND		1.5	mg/Kg	ND		1.5	mg/Kg
Zinc	1500 (m)	1500 (m)	NA	41		12	mg/Kg	60		12	mg/Kg	240		12	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

e - Clean-up standard proposal was based on natural background.

f - Health based criterion is lower than analytical limits, clean-up criterion is based on practical quantitation level.

j - Contaminant not regulated for this exposure pathway.

k - Criteria based on inhalation exposure pathway, which yielded a more stringent criterion than the incidental exposure pathway.

m - Criterion based on ecological (phytotoxicity) effects.

n - Level of the human health based criterion is such that evaluation for potential environmental impacts on a site by site basis

p - Criterion based on the USEPA Integrated Exposure Uptake Biokinetic (IEUBK) model utilizing the default parameters.

q - Criteria were derived from a model developed by the Society for Environmental Geochemistry and Health (SEGH)

TABLE 1C
SOIL ANALYTICAL RESULTS
METALS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-03-042706SO06				H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-001				AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/27/2006				4/28/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Mercury	14	270	NA	0.33		0.11	mg/Kg	0.31		0.1	mg/Kg	0.11		0.1	mg/Kg
Antimony	14	340	NA	ND		2.5	mg/Kg	ND		2.4	mg/Kg	ND		2.3	mg/Kg
Arsenic	20	20	NA	ND		2.5	mg/Kg	ND		2.4	mg/Kg	ND		2.3	mg/Kg
Barium	700	4700 (n)	NA	47		13	mg/Kg	98		12	mg/Kg	30		11	mg/Kg
Beryllium	1(f) / 2(e)	1(f) / 2(e)	NA	ND		0.76	mg/Kg	ND		0.71	mg/Kg	ND		0.69	mg/Kg
Cadmium	39	100	NA	ND		0.76	mg/Kg	ND		0.71	mg/Kg	ND		0.69	mg/Kg
Chromium	120000	(j)	NA	6.9		6.3	mg/Kg	9.7		5.9	mg/Kg	6		5.7	mg/Kg
Copper	600 (m)	600 (m)	NA	17		6.3	mg/Kg	24		5.9	mg/Kg	12		5.7	mg/Kg
Lead	400(p)	600(q)	NA	82		6.3	mg/Kg	52		5.9	mg/Kg	36		5.7	mg/Kg
Nickel	250	2400 (k), (n)	NA	ND		6.3	mg/Kg	12		5.9	mg/Kg	ND		5.7	mg/Kg
Selenium	63	3100	NA	ND		2.3	mg/Kg	ND		2.1	mg/Kg	ND		2.1	mg/Kg
Silver	110	4100 (n)	NA	ND		3.2	mg/Kg	ND		2.9	mg/Kg	ND		2.9	mg/Kg
Thallium	2 (f)	2 (f)	NA	ND		1.5	mg/Kg	ND		1.4	mg/Kg	ND		1.4	mg/Kg
Zinc	1500 (m)	1500 (m)	NA	66		13	mg/Kg	99		12	mg/Kg	37		11	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

e - Clean-up standard proposal was based on natural background.

f - Health based criterion is lower than analytical limits, clean-up criterion is based on practical quantitation level.

j - Contaminant not regulated for this exposure pathway.

k - Criteria based on inhalation exposure pathway, which yielded a more stringent criterion than the incidental exposure pathway.

m - Criterion based on ecological (phytotoxicity) effects.

n - Level of the human health based criterion is such that evaluation for potential environmental impacts on a site by site basis

p - Criterion based on the USEPA Integrated Exposure Uptake Biokinetic (IEUBK) model utilizing the default parameters.

q - Criteria were derived from a model developed by the Society for Environmental Geochemistry and Health (SEGH)

TABLE 1D
SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYL COMPOUNDS (PCB)
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06				H14-SB-02-042606SO06			
				LAB ID: AC23158-001				AC23158-002				AC23158-003			
				COLLECT DATE: 4/26/2006				4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Aroclor-1016	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg
Aroclor-1221	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg
Aroclor-1232	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg
Aroclor-1242	0.49	2	50	6.3		0.3	mg/Kg	5.1		0.16	mg/Kg	30		0.61	mg/Kg
Aroclor-1248	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg
Aroclor-1254	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg
Aroclor-1260	0.49	2	50	ND		0.3	mg/Kg	ND		0.16	mg/Kg	ND		0.61	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Exceeds Indicates Exceedence

TABLE 1D
SOIL ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYL COMPOUNDS (PCB)
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-03-042706SO06				H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-001				AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/27/2006				4/28/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Aroclor-1016	0.49	2	50	ND		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1221	0.49	2	50	ND		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1232	0.49	2	50	ND		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1242	0.49	2	50	0.21		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1248	0.49	2	50	ND		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1254	0.49	2	50	0.067		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg
Aroclor-1260	0.49	2	50	ND		0.03	mg/Kg	ND		0.29	mg/Kg	ND		0.03	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Exceeds Indicates Exceedence

TABLE 1E
SOIL ANALYTICAL RESULTS
PESTICIDES
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06				H14-SB-02-042606SO06			
				LAB ID: AC23158-001				AC23158-002				AC23158-003			
				COLLECT DATE: 4/26/2006				4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Aldrin	0.04	0.17	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Alpha-BHC	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Beta-BHC	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Chlordane	NA	NA	NA	ND		0.012	mg/Kg	ND		0.013	mg/Kg	ND		0.012	mg/Kg
Delta-BHC	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Dieldrin	0.042	0.18	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endosulfan I	340	6200	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endosulfan II	340	6200	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endosulfan Sulfate	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endrin	17	310	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endrin Aldehyde	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Endrin Ketone	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Gamma-BHC	0.52	2.2	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Heptachlor	0.15	0.65	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Heptachlor Epoxide	NA	NA	NA	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Methoxychlor	280	5200	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
P,P'-DDD	3	12	50	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
P,P'-DDE	2	9	50	0.015		0.006	mg/Kg	0.014		0.0063	mg/Kg	0.043		0.0061	mg/Kg
P,P'-DDT	2	9	500	ND		0.006	mg/Kg	ND		0.0063	mg/Kg	ND		0.0061	mg/Kg
Toxaphene	0.10 (k)	0.20 (k)	50	ND		0.03	mg/Kg	ND		0.031	mg/Kg	ND		0.03	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Exceeds Indicates Exceedence

k - Criteria based on inhalation exposure pathway

TABLE 1E
SOIL ANALYTICAL RESULTS
PESTICIDES
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-03-042706SO06				H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-001				AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/27/2006				4/28/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
Aldrin	0.04	0.17	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Alpha-BHC	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Beta-BHC	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Chlordane	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Delta-BHC	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Dieldrin	0.042	0.18	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endosulfan I	340	6200	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endosulfan II	340	6200	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endosulfan Sulfate	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endrin	17	310	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endrin Aldehyde	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Endrin Ketone	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Gamma-BHC	0.52	2.2	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Heptachlor	0.15	0.65	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Heptachlor Epoxide	NA	NA	NA	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Methoxychlor	280	5200	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
P,P'-DDD	3	12	50	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
P,P'-DDE	2	9	50	ND		0.01	mg/Kg	0.025		0.01	mg/Kg	ND		0.01	mg/Kg
P,P'-DDT	2	9	500	ND		0.01	mg/Kg	ND		0.01	mg/Kg	ND		0.01	mg/Kg
Toxaphene	0.10 (k)	0.20 (k)	50	ND		0.03	mg/Kg	ND		0.03	mg/Kg	ND		0.03	mg/Kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Exceeds Indicated Exceedence

k - Criteria based on inhalation exposure pathway

TABLE 1F
SOIL ANALYTICAL RESULTS
% SOILIDS, CYANIDE, TOTAL PHENOLICS, and
TOTAL PETROLEUM HYDROCARBONS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-01-042606SO06				H14-SB1DUP042606SO06				H14-SB-02-042606SO06			
				LAB ID: AC23158-001				AC23158-002				AC23158-003			
				COLLECT DATE: 4/26/2006				4/26/2006				4/26/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
% Solids	NA	NA	NA	83			Percent	80			Percent	82			Percent
Cyanide	1100	21,000 (o)	NA	ND		0.3	mg/kg	ND		0.31	mg/kg	0.78		0.3	mg/kg
Total Phenolics				3.4		1.5	mg/kg	2.3		1.6	mg/kg	2		1.5	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1400		41	mg/kg	1100		43	mg/kg	7200		410	mg/kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

o - Level of the criterion is such that evaluation for potential acute exposure hazard is recommended.

TABLE 1F
SOIL ANALYTICAL RESULTS
% SOLIDS, CYANIDE, TOTAL PHENOLICS, and
TOTAL PETROLEUM HYDROCARBONS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

Test Parameter	NJ Soil Residential Cleanup Criteria (mg/Kg)	NJ Soil NonResidential Cleanup Criteria (mg/Kg)	NJ Impact To GW Cleanup Criteria (mg/Kg)	CLIENT ID: H14-SB-03-042706SO06				H14-SB-04-042706SO05				H14-MW-01-042806SO06			
				LAB ID: AC23180-001				AC23180-002				AC23223-001			
				COLLECT DATE: 4/27/2006				4/27/2006				4/28/2006			
				Result	Flg	RL	Units	Result	Flg	RL	Units	Result	Flg	RL	Units
% Solids	NA	NA	NA	79			Percent	85			Percent	87			Percent
Cyanide	1100	21,000 (o)	NA	ND		0.32	mg/kg	0.32		0.29	mg/kg	ND		0.29	mg/kg
Total Phenolics				2.1		1.6	mg/kg	2.9		1.5	mg/kg	1.7		1.4	mg/kg
Total Petroleum Hydrocarbons	10000	10000	10000	1200		43	mg/kg	13000		1000	mg/kg	92		39	mg/kg

NA - Non Applicable

ND - Non Detect

J - Estimated Value

BOLD- Indicates Excedence

o - Level of the criterion is such that evaluation for potential acute exposure hazard is recommended.

TABLE 2A
GROUND WATER ANALYTICAL RESULTS
VOLITILE ORGANICS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID: H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID: AC23527-001				AC23527-002			
		COLLECT DATE: 5/16/2006				5/16/2006			
		Result	Flg	RL	Units	Result	Flg	RL	Units
:TotalVolatileTic		262.3	J	NA	ug/L	258.5	J	NA	ug/L
1,1,1,2-Tetrachloroethane	10	ND		0.33	ug/L	ND		0.33	ug/L
1,1,1-Trichloroethane	30	ND		0.43	ug/L	ND		0.43	ug/L
1,1,2,2-Tetrachloroethane	1	ND		0.37	ug/L	ND		0.37	ug/L
1,1,2-Trichloroethane	3	ND		0.25	ug/L	ND		0.25	ug/L
1,1-Dichloroethane	50	2.3		0.28	ug/L	2.4		0.28	ug/L
1,1-Dichloroethene	1	ND		0.4	ug/L	ND		0.4	ug/L
1,2-Dichloroethane	2	ND		0.42	ug/L	ND		0.42	ug/L
1,2-Dichloropropane	1	ND		0.48	ug/L	ND		0.48	ug/L
2-Butanone	300	ND		0.92	ug/L	ND		0.92	ug/L
2-Chloroethylvinylether	NA	ND		0.33	ug/L	ND		0.33	ug/L
2-Hexanone	NA	ND		0.58	ug/L	ND		0.58	ug/L
4-Methyl-2-Pentanone	NA	ND		0.55	ug/L	ND		0.55	ug/L
Acetone	6000	ND		2.5	ug/L	ND		2.5	ug/L
Acrolein	5	ND		5.9	ug/L	ND		5.9	ug/L
Acrylonitrile	2	ND		0.47	ug/L	ND		0.47	ug/L
Benzene	1	ND		0.15	ug/L	ND		0.15	ug/L
Bromodichloromethane	1	ND		0.2	ug/L	ND		0.2	ug/L
Bromoform	4	ND		0.36	ug/L	ND		0.36	ug/L
Bromomethane	10	ND		0.61	ug/L	ND		0.61	ug/L
Carbon disulfide	700	ND		0.62	ug/L	ND		0.62	ug/L
Carbon tetrachloride	1	ND		0.44	ug/L	ND		0.44	ug/L
Chlorobenzene	50	ND		0.29	ug/L	ND		0.29	ug/L
Chloroethane	NA	140		0.6	ug/L	140		0.6	ug/L
Chloroform	70	ND		0.24	ug/L	ND		0.24	ug/L
Chloromethane	NA	ND		0.64	ug/L	ND		0.64	ug/L
Cis-1,2-Dichloroethene	70	ND		0.42	ug/L	ND		0.42	ug/L
Cis-1,3-Dichloropropene	1	ND		0.45	ug/L	ND		0.45	ug/L
Dibromochloromethane	1	ND		0.39	ug/L	ND		0.39	ug/L
Ethylbenzene	700	ND		0.67	ug/L	ND		0.67	ug/L
M&p-Xylenes	1000	1.8		0.71	ug/L	2.2		0.71	ug/L
Methylene chloride	3	ND		0.91	ug/L	ND		0.91	ug/L
O-Xylene	1000	1.8		0.45	ug/L	1.9		0.45	ug/L
Styrene	100	ND		0.37	ug/L	ND		0.37	ug/L
Tetrachloroethene	1	ND		0.35	ug/L	ND		0.35	ug/L
Toluene	1000	ND		0.31	ug/L	ND		0.31	ug/L
Trans-1,2-Dichloroethene	100	ND		0.44	ug/L	ND		0.44	ug/L
Trans-1,3-Dichloropropene	1	ND		0.22	ug/L	ND		0.22	ug/L
Trichloroethene	1	ND		0.31	ug/L	ND		0.31	ug/L
Vinyl chloride	1	ND		0.71	ug/L	ND		0.71	ug/L

NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

TABLE 2B
GROUND WATER ANALYTICAL RESULTS
BASE NUTRIAL ACIDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID: H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID: AC23527-001				AC23527-002			
		COLLECT DATE: 5/16/2006				5/16/2006			
		Result	Flg	RL	Units	Result	Flg	RL	Units
:TotalSemiVolatileTic		3500	J	NA	ug/L	2425	J	NA	ug/L
1,2,4-Trichlorobenzene	9	ND		10	ug/L	ND		5.3	ug/L
1,2-Dichlorobenzene	600	ND		12	ug/L	ND		6.4	ug/L
1,2-Diphenylhydrazine	20	ND		2.9	ug/L	ND		1.5	ug/L
1,3-Dichlorobenzene	600	ND		15	ug/L	ND		7.8	ug/L
1,4-Dichlorobenzene	75	ND		16	ug/L	ND		8.4	ug/L
2,4,5-Trichlorophenol	700	ND		41	ug/L	ND		21	ug/L
2,4,6-Trichlorophenol	20	ND		19	ug/L	ND		9.7	ug/L
2,4-Dichlorophenol	20	ND		27	ug/L	ND		14	ug/L
2,4-Dimethylphenol	100	23	J	43	ug/L	21	J	22	ug/L
2,4-Dinitrophenol	40	ND		14	ug/L	ND		7	ug/L
2,4-Dinitrotoluene	10	ND		7.9	ug/L	ND		4	ug/L
2,6-Dinitrotoluene	10	ND		7.2	ug/L	ND		3.7	ug/L
2-Chloronaphthalene	600	ND		8.9	ug/L	ND		4.5	ug/L
2-Chlorophenol	40	ND		32	ug/L	ND		16	ug/L
2-Methylnaphthalene	NA	ND		76	ug/L	ND		39	ug/L
2-Methylphenol	NA	ND		84	ug/L	ND		43	ug/L
2-Nitroaniline	NA	ND		36	ug/L	ND		18	ug/L
2-Nitrophenol	NA	ND		18	ug/L	ND		9	ug/L
3&4-Methylphenol	NA	300		89	ug/L	220		46	ug/L
3,3'-Dichlorobenzidine	30	ND		17	ug/L	ND		8.9	ug/L
3-Nitroaniline	NA	ND		56	ug/L	ND		29	ug/L
4,6-Dinitro-2-methylphenol	NA	ND		18	ug/L	ND		9	ug/L
4-Bromophenyl-phenylether	NA	ND		11	ug/L	ND		5.8	ug/L
4-Chloro-3-methylphenol	NA	ND		24	ug/L	ND		12	ug/L
4-Chloroaniline	30	ND		66	ug/L	ND		34	ug/L
4-Chlorophenyl-phenylether	NA	ND		8.2	ug/L	ND		4.2	ug/L
4-Nitroaniline	NA	ND		34	ug/L	ND		17	ug/L
4-Nitrophenol	NA	ND		24	ug/L	ND		12	ug/L
Acenaphthene	400	ND		5.5	ug/L	ND		2.8	ug/L
Acenaphthylene	NA	ND		5.3	ug/L	ND		2.7	ug/L
Anthracene	2000	ND		4	ug/L	ND		2.1	ug/L
Benzidine	20	ND		190	ug/L	ND		96	ug/L
Benzo[a]anthracene	0.1	ND		4.9	ug/L	ND		2.5	ug/L
Benzo[a]pyrene	0.1	ND		3.5	ug/L	ND		1.8	ug/L
Benzo[b]fluoranthene	0.2	ND		4.6	ug/L	ND		2.4	ug/L
Benzo[g,h,i]perylene	NA	ND		6.2	ug/L	ND		3.2	ug/L

TABLE 2B
GROUND WATER ANALYTICAL RESULTS
BASE NUTRIAL ACIDS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID: H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID: AC23527-001				AC23527-002			
		COLLECT DATE: 5/16/2006				5/16/2006			
		Result	Flg	RL	Units	Result	Flg	RL	Units
Benzo[k]fluoranthene	0.5	ND		6.8	ug/L	ND		3.5	ug/L
Bis(2-Chloroethoxy)methane	NA	ND		4.1	ug/L	ND		2.1	ug/L
Bis(2-Chloroethyl)Ether	7	ND		9.3	ug/L	ND		4.8	ug/L
Bis(2-Chloroisopropyl)ether	300	ND		4.9	ug/L	ND		2.5	ug/L
Bis(2-Ethylhexyl)phthalate	3	ND		8.1	ug/L	ND		4.2	ug/L
Butylbenzylphthalate	100	ND		5	ug/L	ND		2.6	ug/L
Carbazole	NA	ND		3.5	ug/L	ND		1.8	ug/L
Chrysene	5	ND		4.1	ug/L	ND		2.1	ug/L
Dibenzo[a,h]Anthracene	0.3	ND		5.4	ug/L	ND		2.8	ug/L
Dibenzofuran	NA	ND		34	ug/L	ND		17	ug/L
Diethylphthalate	6000	ND		6.2	ug/L	ND		3.2	ug/L
Dimethylphthalate	NA	ND		3.8	ug/L	ND		2	ug/L
Di-n-butylphthalate	700	ND		7	ug/L	ND		3.6	ug/L
DI-n-octylphthalate	100	ND		4.1	ug/L	ND		2.1	ug/L
Fluoranthene	300	ND		3.4	ug/L	ND		1.7	ug/L
Fluorene	300	ND		3.2	ug/L	ND		1.7	ug/L
Hexachlorobenzene	0.02	ND		5.9	ug/L	ND		3	ug/L
Hexachlorobutadiene	1	ND		14	ug/L	ND		6.9	ug/L
Hexachlorocyclopentadiene	40	ND		100	ug/L	ND		51	ug/L
Hexachloroethane	7	ND		15	ug/L	ND		7.6	ug/L
Indeno[1,2,3-cd]pyrene	0.2	ND		3.9	ug/L	ND		2	ug/L
Isophorone	40	ND		3.1	ug/L	ND		1.6	ug/L
Naphthalene	300	ND		9.6	ug/L	ND		4.9	ug/L
Nitrobenzene	6	ND		5.1	ug/L	ND		2.6	ug/L
N-Nitrosodimethylamine	0.8	ND		190	ug/L	ND		97	ug/L
N-Nitroso-Di-N-Propylamine	10	ND		5.6	ug/L	ND		2.8	ug/L
N-Nitrosodiphenylamine	10	ND		3.4	ug/L	ND		1.7	ug/L
Pentachlorophenol	0.3	ND		17	ug/L	ND		8.5	ug/L
Phenanthrene	NA	ND		5	ug/L	ND		2.5	ug/L
Phenol	2000	1600		32	ug/L	970		16	ug/L
Pyrene	200	ND		3.2	ug/L	ND		1.6	ug/L

NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

TABLE 2C
GROUND WATER ANALYTICAL RESULTS
METALS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID:	H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID:	AC23527-001				AC23527-002			
		COLLECT DATE:	5/16/2006				5/16/2006			
			Result	Flg	RL	Units	Result	Flg	RL	Units
Mercury	2		0.2		0.2	ug/L	0.2		0.2	ug/L
Antimony	6		ND		7.5	ug/L	ND		7.5	ug/L
Arsenic	3		4		4	ug/L	4		4	ug/L
Barium	2000		730		25	ug/L	630		25	ug/L
Beryllium	1		ND		4	ug/L	ND		4	ug/L
Cadmium	4		2		2	ug/L	3.7		2	ug/L
Chromium	70		25		25	ug/L	52		25	ug/L
Copper	1300		250		25	ug/L	160		25	ug/L
Lead	5		5		5	ug/L	5		5	ug/L
Nickel	100		71		10	ug/L	51		10	ug/L
Selenium	40		ND		25	ug/L	ND		25	ug/L
Silver	40		ND		10	ug/L	ND		10	ug/L
Thallium	2		ND		5	ug/L	ND		5	ug/L
Zinc	2000		1000		25	ug/L	730		25	ug/L

NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

TABLE 2D
GROUND WATER ANALYTICAL RESULTS
POLYCHLORINATED BIPHENYL COMPOUNDS (PCB)
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID:	H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID:	AC23527-001				AC23527-002			
		COLLECT DATE:	5/16/2006				5/16/2006			
			Result	Flg	RL	Units	Result	Flg	RL	Units
Aroclor-1016	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1221	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1232	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1242	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1248	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1254	0.5		ND		0.26	ug/L	ND		0.27	ug/L
Aroclor-1260	0.5		ND		0.26	ug/L	ND		0.27	ug/L

NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

TABLE 2E
GROUND WATER ANALYTICAL RESULTS
PESTICIDES
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID:	H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID:	AC23527-001				AC23527-002			
		COLLECT DATE:	5/16/2006				5/16/2006			
			Result	Flg	RL	Units	Result	Flg	RL	Units
Aldrin	0.04		ND		0.011	ug/L	ND		0.011	ug/L
Alpha-BHC	0.02		ND		0.011	ug/L	ND		0.011	ug/L
Beta-BHC	0.04		ND		0.011	ug/L	ND		0.011	ug/L
Chlordane	0.5		ND		0.11	ug/L	ND		0.11	ug/L
Delta-BHC	NA		ND		0.011	ug/L	ND		0.011	ug/L
Dieldrin	0.03		ND		0.011	ug/L	ND		0.011	ug/L
Endosulfan I	40		ND		0.011	ug/L	ND		0.011	ug/L
Endosulfan II	40		ND		0.011	ug/L	ND		0.011	ug/L
Endosulfan Sulfate	40		ND		0.011	ug/L	ND		0.011	ug/L
Endrin	2		ND		0.011	ug/L	ND		0.011	ug/L
Endrin Aldehyde	NA		ND		0.011	ug/L	ND		0.011	ug/L
Endrin Ketone	NA		ND		0.011	ug/L	ND		0.011	ug/L
Gamma-BHC	0.03		ND		0.011	ug/L	ND		0.011	ug/L
Heptachlor	0.05		ND		0.011	ug/L	ND		0.011	ug/L
Heptachlor Epoxide	0.2		ND		0.011	ug/L	ND		0.011	ug/L
Methoxychlor	40		ND		0.011	ug/L	ND		0.011	ug/L
P,P'-DDD	0.1		ND		0.011	ug/L	ND		0.011	ug/L
P,P'-DDE	0.1		ND		0.011	ug/L	ND		0.011	ug/L
P,P'-DDT	0.1		ND		0.011	ug/L	ND		0.011	ug/L
Toxaphene	2		ND		0.26	ug/L	ND		0.27	ug/L

NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

TABLE 2F
GROUND WATER ANALYTICAL RESULTS
CYANIDE, TOTAL PHENOLICS AND TOTAL PETROLEUM HYDROCARBONS
HANGAR 14 - NEWARK LIBERTY INTERNATIONAL AIRPORT

TestName	NJ Ground Water Quality Criteria (ug/L)	CLIENT ID: H14-MW-01-051606WG01				H14-MW-01D-051606WG01			
		LAB ID: AC23527-001				AC23527-002			
		COLLECT DATE: 5/16/2006				5/16/2006			
		Result	Flg	RL	Units	Result	Flg	RL	Units
Cyanide	100	0.046		0.01	mg/l	0.077		0.01	mg/l
Total Phenolics		4.4		1.2	mg/l	4.6		1.2	mg/l
Total Petroleum Hydrocarbons	NA	1.6		1.1	mg/l	1.6		1.1	mg/l

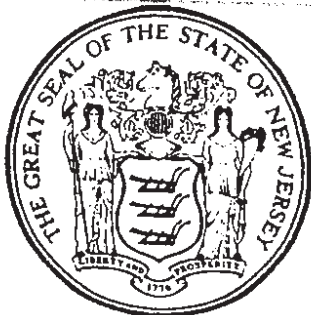
NA - Not Applicable

ND - Non-Detect

J - Estimated Value

BOLD- Indicates Excedence

APPENDIX A



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION



Certifies That

HATCH MOTT MACDONALD
27 BLEEKER ST
Millburn, NJ 07041

*Having duly met the requirements of the
Underground Storage Tank Certification Program
N.J.S.A. 58:10A-24.1-8*

Is hereby approved to perform the following services:

CATHODIC PROTECTION SPECIALIST
CLOSURE
INSTALLATION-ENTIRE UST SYSTEM
SUBSURFACE EVALUATION
TANK TESTING

US00089
CERTIFICATION NUMBER

03/31/2007
EXPIRATION DATE

A handwritten signature in cursive script, reading "Joseph Galardi".

ASSISTANT COMMISSIONER, DEPARTMENT
OF ENVIRONMENTAL PROTECTION

TO BE CONSPICUOUSLY DISPLAYED AT THE FACILITY

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

STATE OF
NEW JERSEY



Hereby Certifies the Goodstanding of

JENNIFER NULTY-KOHLISAAT SSN:

License No. 0011809

Reg No. 0011809

AS A LICENSED:

SUBSURFACE

Expires: 06/30/07

Document#: 042493260

APPENDIX B

MONITORING WELL CERTIFICATION - 'FORM B' - LOCATION CERTIFICATION

Name of Owner: The Port Authority of NY & NJ.

Name of Facility: NEWARK-LIBERTY INTERNATIONAL AIRPORT.

Location: HANGAR 14, UNITED AIRLINES.

Case Number(s): N/A (UST#, ISRA #, Incident #, or EPA#)

Land Surveyor's Certification

Well Permit Number 2600078854

(This number must be permanently affixed to the well casing.)

Owners Well Number (As shown on application or plans): H14 MW1

Geographic Coordinate NAD 83 (To nearest 1/10 of second):

Longitude: West Latitude: 74-10-35.8 North 40-42-16.6

New Jersey State Plane Coordinates NAD 83 to nearest 10 feet:

North 681752 East 581778

Elevation of Top of Inner Casing (cap off) at

Reference mark (nearest 0.01'): 11.37 (NGVD'29 FT.)

Source of elevation datum (benchmark, number/description and elevation/datum. If An on-site datum is used, identify here, assume datum of 100', and give Approximated actual elevation.

PA BM Z-12 ELEV. 12.08 NGVD29, NEWARK AIRPORT

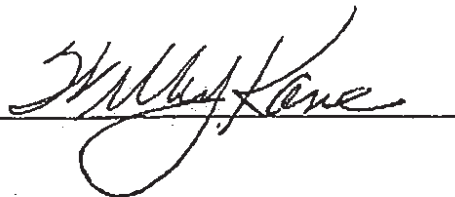
Significant observations and notes:

Authentication

I certify under penalty of law that I have personally examined and am familiar With the information submitted in this document and all attachments and that, Based on my inquiry of those individuals immediately responsible for obtaining The information, I believe the submitted information is true, accurate and Complete. I am aware that there are significant penalties for submitting false Information including the possibility of fine and imprisonment.

Seal

Professional Land Surveyor's Signature



Date JUNE 22, 2006.

Professional Land Surveyor's Name and License Number (Print)

William J. Kane

GS 30405.

Professional Land Surveyor's Address and Phone Number

(BUSINESS) 241 Erie Street Jersey City NJ 07310-1397. 201 595-4842

APPENDIX C

JUL-11-2006 10:50 PA NY NJ 9735657649 P.03

TOTAL P 03

CHECKER: YATES

GE:

PA NY NJ

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

Sheet 2 of 3

PROJECT: <i>OWR- Hangar 14</i>		Sheet <i>2</i> of <i>3</i>	
BORING No. <i>H14-SB-1</i>		DATE: <i>4/26/06</i>	
FIELD READING BY: <i>T. Ryan</i>		PID Model: <i>Moss Rac</i>	

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: EWP- Hanger 14

LOCATION: As laid out by H M MacDonald / Center of UST DATE: 4/26/06

BORING No H14-SB-1

TOTAL No. OF SAMPLES: 2 + Dup.

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

BY (SIGN)

T. Ryan

DATE 4/26/06

RECEIVED

TIME

BY (SIGN)

RELINQUISHED

BY (SIGN)

DATE

RECEIVED

TIME

BY (SIGN)

RELINQUISHED

BY (SIGN)

DATE

RECEIVED

TIME

BY LAB

REMARKS:

1 Sample in 1-16 oz jar & 1 meth vial

1-Dup in 1-16 oz jar & 1 meth vial.

Sample # 6 - Meth Vial # 26669

Sample # 6 Dup. - " " # 26670

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section

BORING REPORT

SHEET 1 OF 3
SURFACE ELEV.

PROJECT <i>ENR - Hanger 14</i>				NAME OF CONTRACTOR <i>ADT</i>		BORING NO. <i>H14-SB-2</i>		DATE <i>4/26/06</i>	
LOCATION <i>As laid out by H/M MacDonald / So. end of UST</i>				CONTRACT NO. <i>426-06-007</i>		DATE <i>4/26/06</i>			
SPOON <i>3</i>		CASING SIZE <i>2 3/8" O.D. 2 3/8" I.D.</i>		HOLE TYPE <i>Augers-4"</i>		GROUND WATER LEVEL			
HAMMER <i>140 # FALL</i>		HAMMER <i>30 # FALL</i>		Date <i>4/26/06</i>		Time <i>12:55 P</i>		Depth <i>11.0'</i>	
DRILLER <i>G. Strungham</i>				Remarks <i>In 5th</i>					
INSPECTOR <i>T. Ryan</i>									
CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE				
<i>Bullet Head</i>	<i>0</i>				<i>ASPHALT</i>				
		<i>Hand Auger</i>	<i>Full Rec</i>	<i>1</i>	<i>Fill - Br C-F Sand, little gravel, to cobbles, to Silt, to rubber.</i>				
	<i>5</i>	<i>↓</i>	<i>↓</i>	<i>2</i>	<i>Same (Fuel Odor)</i>				
		<i>7-9</i>		<i>3</i>	<i>Same w/ to Glass, to Wood.</i>				
		<i>11-18</i>	<i>20"</i>	<i>4</i>	<i>Fill - Rubber w. to sand (No burning, a piece of rubber in open)</i>				
	<i>10</i>	<i>6-6</i>	<i>14"</i>	<i>5</i>	<i>Fill - Br M-F Sand, to Silt, lit G, to rubber, Metal, Glass</i>				
		<i>5-4</i>		<i>6</i>	<i>Misc Fill - Cinders, Glass, little Sand (m-F)</i>				
	<i>15</i>				<i>Bottom of Boring</i>				

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

Note: Sample #6 was saved all other samples were screened w/ PID & then discarded

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

PROJECT: ewf- Hangar 14

DATE: 4/26/06

BORING No. H14-SB-2

PID Model: *Mini Lat*

FIELD READINGS BY: *T. Kyau*

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: EWR - Hanger 14

LOCATION: As laid out by HM MacDonald

DATE: 4/26/06

BORING No: H14-SB-2

TOTAL No. OF SAMPLES: 1

SIGNATURE OF ALL

PRESENT AT SAMPLING

T.R.

RELINQUISHED

BY (SIGN)

T.R.

DATE 4/26/06 RECEIVED

TIME

BY (SIGN)

RELINQUISHED

BY (SIGN)

DATE

RECEIVED

TIME

BY (SIGN)

RELINQUISHED

BY (SIGN)

DATE

RECEIVED

TIME

BY LAB

REMARKS:

1 Sample in 1-16oz jar & 1 meth vial

Sample # 6 = Meth Vial # 26675

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

PROJECT: EWR- Hangan 14

BORING No. H14-SB-3

DATE: 4/27/06

FIELD READINGS BY:

DATE:	
PID Model:	Mini Rse

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: EWR-Hanger 14	
LOCATION: Do laid out by H.M. MacDonald/ND EWD	DATE: 4/27/06
BORING No: H14-SB-3	TOTAL No. OF SAMPLES: 1

SIGNATURE OF ALL PRESENT AT SAMPLING		
T. Ryan		
RELINQUISHED BY (SIGN)	DATE 4/27/06 TIME	RECEIVED BY (SIGN)
RELINQUISHED BY (SIGN)	DATE TIME	RECEIVED BY (SIGN)
RELINQUISHED BY (SIGN)	DATE TIME	RECEIVED BY LAB

REMARKS: 1 Sample in 1-16oz jar & 1 Meth Vial *

Sample # 6 = * Meth Vial # 26827

**Engineering Department
Construction Division
Materials Engineering Section**

BORING REPORT

PROJECT				NAME OF CONTRACTOR		BORING NO.	SHEET 1 OF 2
LOCATION						CONTRACT NO.	SURFACE ELEV.
SPoon				CASING SIZE	HOLE TYPE		DATE
HAMMER				HAMMER			
DRILLER				GROUND WATER LEVEL			
INSPECTOR				Date	Time	Depth	Remarks
EWK - Hangan 14				ADT		H14-SB-4	
As laid out by H.M. McDonald / West side						426-06-007	4/27/06
3 "O.D. 2 3/8 "I.D.				Augers-4"	1		
140 # FALL 30 "				HAMMER			
G. Stringham							
T. Ryan							
				4/27/06	-	-	None Encountered.
CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE-COV'D	SAMP. NO.	³ SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE		
Bullet Head	0				ASPHALT		
		Hand Auger	Fuel Rec	1	Fill-Bn C-F Sand, some Gravel, ls Silt, ls Cobbles.		
	5	↓	↓	2	Same		
Augers ↓		9-7		3	Same w/ fuel odor		
		9-15	15"	4	Same		
	10	29-21	20"	5	Misc Fill - Cinders M-F Sand, Brick, Glass etc.		
		14-11			Bottom of Boring ↑		
	15						
Note: Sample # 5 (9'-10') was saved. All other samples were screened w/ PID & then discarded.							

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
PID READINGS

PROJECT:	EWR - Hangan 14	
BORING No.	H14-SB-4	DATE: 4/27/06
FIELD READINGS BY:	T. Ryan	PID Model: Mini Rao

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 3 of 3

PROJECT: EWR - Hangar 14

LOCATION: As laid out by H.M. MacDonald / West Side DATE: 4/27/06

BORING No: H14-SB-4

TOTAL No. OF SAMPLES: 1

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

DATE 4/27/06

RECEIVED

BY (SIGN)

T. Ryan

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Sample in 1-16 oz jar & 1 Meth vial *

Sample # 5 = * Meth Vial # 26828

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

THE PORT AUTHORITY OF NY & NJ

Engineering Department
Construction Division
Materials Engineering Section
BORING REPORT

PROJECT <i>EWB - Hangan 14</i>		NAME OF CONTRACTOR <i>ADT</i>		BORING NO. <i>H14-MW-1</i>		SHEET <i>1</i> OF <i>4</i>	
LOCATION <i>As laid out by H.M. MacDonald (± 7' S.E. of SB-1)</i>				CONTRACT NO. <i>426-06-007</i>		DATE <i>4/27/06</i>	
SPOON <i>3</i> "O.D. <i>2 3/8</i> "I.D.		CASING SIZE <i>Augers 4"</i>		HOLE TYPE <i>A Monitor</i>		GROUND WATER LEVEL	
HAMMER <i>140</i> # FALL <i>30</i>		HAMMER # FALL		Date <i>4/27/06</i>	Time <i>1:35 P</i>	Depth <i>9.5'</i>	Remarks <i>In S#4</i>
DRILLER <i>G. Stringham</i>							
INSPECTOR <i>T. Ryan</i>							

CASING BLOWS/FT.	DEPTH	SPOON BLOWS/6"	RE- COV'D	SAMP. NO.	SAMPLE DESCRIPTION AND REMARKS LINE LOCATES CHANGE OF PROFILE
<i>Bullet Head</i>					<i>ASPHALT</i>
		<i>Hand Auger</i>	<i>Full</i>	<i>1</i>	<i>Till - Br C-F Sand, some Gravel, to Silt, to Cobbles</i>
	<i>5</i>			<i>2</i>	<i>Same w/ little Cobbles</i>
		<i>19-21</i>		<i>3</i>	<i>Same (fuel odor)</i>
		<i>22-23</i>	<i>21"</i>		
		<i>32-20</i>		<i>4</i>	<i>Same (fuel odor)</i>
	<i>10</i>	<i>21-32</i>	<i>22"</i>		
		<i>24-24</i>		<i>5</i>	<i>Same</i>
		<i>33-36</i>	<i>2"</i>		
		<i>3-8</i>		<i>6</i>	<i>Till - Br M-F Sand, to Silt, to Gravel, to Shells</i>
		<i>13-13</i>	<i>20"</i>		
	<i>15</i>	<i>5-7</i>		<i>7</i>	<i>Same w/ to org clay in tip of spoon</i>
		<i>5-4</i>	<i>14"</i>		
		<i>5-4</i>		<i>8</i>	<i>Br Peat, some org clay</i>
		<i>5-6</i>	<i>20"</i>		
	<i>20</i>				<i>Bottom of Boring</i>
					<i>Note: Sample #6/13-14' was saved. All other samples were screened w/ #10 & then discarded.</i>

NOTES: 1 — Length recovered; 0" — Loss of Sample, T — Trap used
2 — U = undisturbed; A = auger; OER = open end rod; V = vane
3 — Log depth of change in color of wash water, loss of water, artesian water, sand heave in casing, etc.

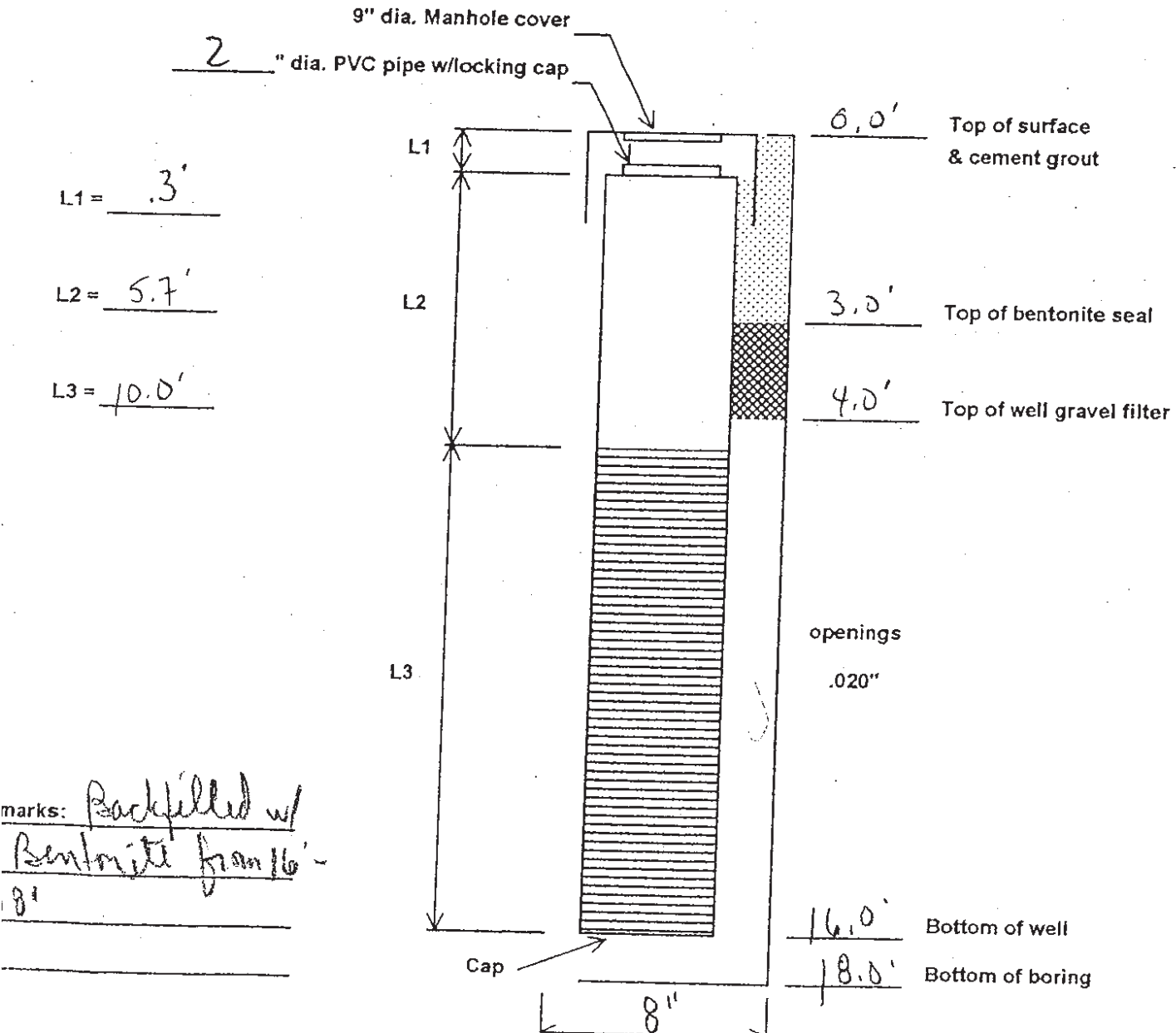
THE PORT AUTHORITY OF PANAMA

Engineering Department
Materials Engineering Division

Well Installation Report

Sheet 2 of 4

PROJECT: EWR - Hangar 14		CONTRACT NO. 426-06-007	
LOCATION: As laid out by H. M. McDonald		CONTRACTOR ADT	
WELL NO. H14-MW-1	WELL TYPE 'A' monitor	DATE: 4/28/06	
DRILLER: G. Stringham		INSPECTOR: T. Ryan	
Well Development Report (NOTE: WATER LEVEL READINGS FROM TOP OF PVC)			
DATE: 4/28/06	WATER LEVEL BEFORE: 9.5'	WATER LEVEL AFTER: 9.6'	
TAKEN 15 MINUTES AFTER DEVELOPMENT			



Sheet 3 of 4

PROJECT: EWR - Hangar 14		Sheet 2 of 4
BORING No. H14-mw-1	DATE: 4/27/96	
FIELD READING BY: T. Ryan	PID Model: Mini Rae	

[illegible]

THE PORT AUTHORITY OF N.Y & N.J.

ENGINEERING DEPARTMENT
MATERIALS ENGINEERING DIVISION
CHAIN OF CUSTODY RECORD

Sheet 4 of 4

PROJECT: EWR - Hanger 14	
LOCATION: As laid out by H.M. McDonald	DATE: 4/28/06
BORING No: H14-MW-1	TOTAL No. OF SAMPLES: 1

SIGNATURE OF ALL

PRESENT AT SAMPLING

T. Ryan

RELINQUISHED

DATE 4/28/06 RECEIVED

BY (SIGN)

T. Ryan

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY (SIGN)

RELINQUISHED

DATE

RECEIVED

BY (SIGN)

TIME

BY LAB

REMARKS:

1 Sample in 1-16 oz jar & 1 Meth Vial *

Sample # - 6 = Meth Vial # 26832

APPENDIX D

GROUNDWATER PURGE DATA SHEET

Hampton-Clarke, Inc.

175 Route 46 West, Fairfield, NJ 07004

NJDEP # 14622

NYDOH # 11408

EPA # NJ00386

Project Name: PANYNJ - EWR-Hanger 14

Project Number: 1010-001

Date: 5/16/2006

Weather: Rainy 60 degrees Fahrenheit

Field Personnel: Brian Swofford / Christine Olsen

Monitoring Well Number: H 14 - MW - 1

Permit Number: _____

PID Reading: _____

Free Product Thickness: _____

LOW-FLOW

Well Diameter: 2 inches

Total Depth of Well: 15.92 feet (from top of casing)

Depth to Water: 8.83 feet (from top of casing)

Linear feet of Water: 7.09 feet

Gallons/Linear Foot: 0.163 gal/ft

Volume of Water Column: 1.15567 Gallons

Minimum Purge Volume: 3.46701 Gallons (3 volumes)

Diameter of Casing	Gal/lin foot
2"	0.163
4"	0.653
6"	1.469
8"	2.611
10"	4.08
12"	5.875

Groundwater Parameters	Pre-Purge	1st	2nd	3rd	4th	5th	6th	7th	Post-Sampling
Time	9:19	9:24	9:28	9:39	9:44	9:48	9:51		
Depth to Water (ft)	8.83	9.38	9.92	9.95	10.38	10.47	10.83		
Color	Clear	Clear	Clear	Clear	Clear	Clear	Clear		
Clarity	Good	Good	Good	Good	Good	Good	Good		
Cumulative Volume (gals)		1.00	1.25	2.00	2.25	2.50	2.75		
pH	6.18	6.39	6.57	6.58	6.67	6.80	6.83		
Specific Cond. (mS/m)	0.203	0.234	0.240	0.268	0.266	0.269	0.272		
Turbidity	889.0	614.0	512.0	839.0	374.0	213.0	193.0		
DO (mg/L)	15.26	13.10	11.94	10.67	10.43	10.31	10.28		
Temperature (°C)	17.40	18.37	18.25	18.92	18.84	18.89	18.88		
Salinity (‰)	0.10	0.11	0.12	0.12	0.13	0.13	0.14		
TDS	1.41	1.50	1.54	1.59	1.73	1.72	1.76		
ORP (mV)	-74	-92	-123	-174	-184	-187	-189		

Purge Start Time: 9:19

Purge End Time: 9:51

Total Purge Volume: 2.75 gallons

Total Purge Time: 32 min

Purge Method: Grundfos Pump

Purge Rate: 0.08594 gal/min

Sample Start Time: 9:51

Sample End Time: 10:32

Sampling Method: Bailer

Total Sampling Time: 41 min

Observations:

Sampling Technician: Brian Swofford
Printed Name

Signature

APPENDIX E